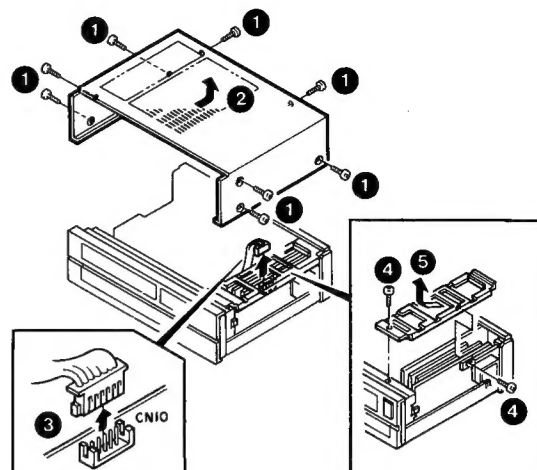


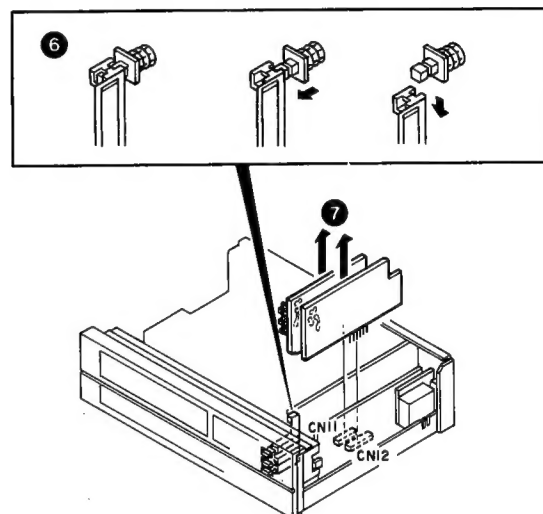
\* Refer to Parts List on page 38.

## DISASSEMBLY FOR REPAIR

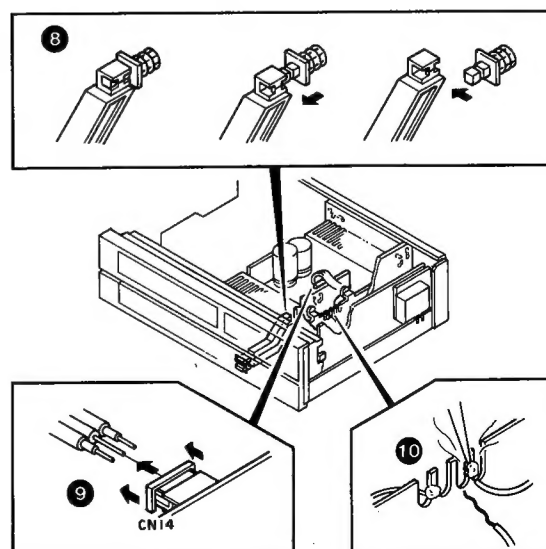
1. Remove 8 screws and remove the metallic cabinet (1, 2).
2. Disconnect the cord from the CN10 (3).
3. Remove 1 screw retaining the frame to the sub panel and 1 screw at the side (4).  
Slide out the frame as shown by the arrow (5).



4. Take the knob joints from the SYNTHETIC STEREO, VIDEO switches by the following procedures (6).
  - a. Pull out the knob joint frontward till it stops.
  - b. Slide the knob joint downward so that the switch shaft can be relieved from the cut part of the knob joint.
5. Pull out the video control pcb (X14-1790-10) (A/2) and receiver pcb (X14-1780-10) (D/5) (7).

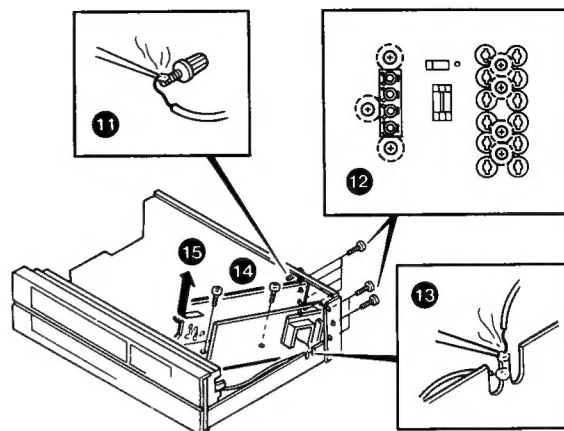


6. Take the knob joints from the EQUALIZER switches by the following procedures (8).
  - a. Pull out the knob joint frontward till it stops.
  - b. Slide the knob joint leftward so that the switch shaft can be relieved from the cut part of the knob joint.
7. Disconnect the parallel cord from receiver pcb (X14-1780-10) (A/5) to power amp pcb (X07-2300-10) (B/6) (9).
8. Unsolder the ground lead from the receiver pcb (X14-1780-10) (A/5) (10).

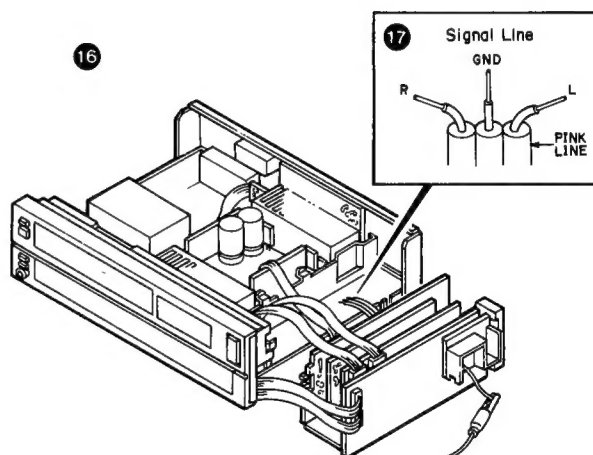


# DISASSEMBLY FOR REPAIR

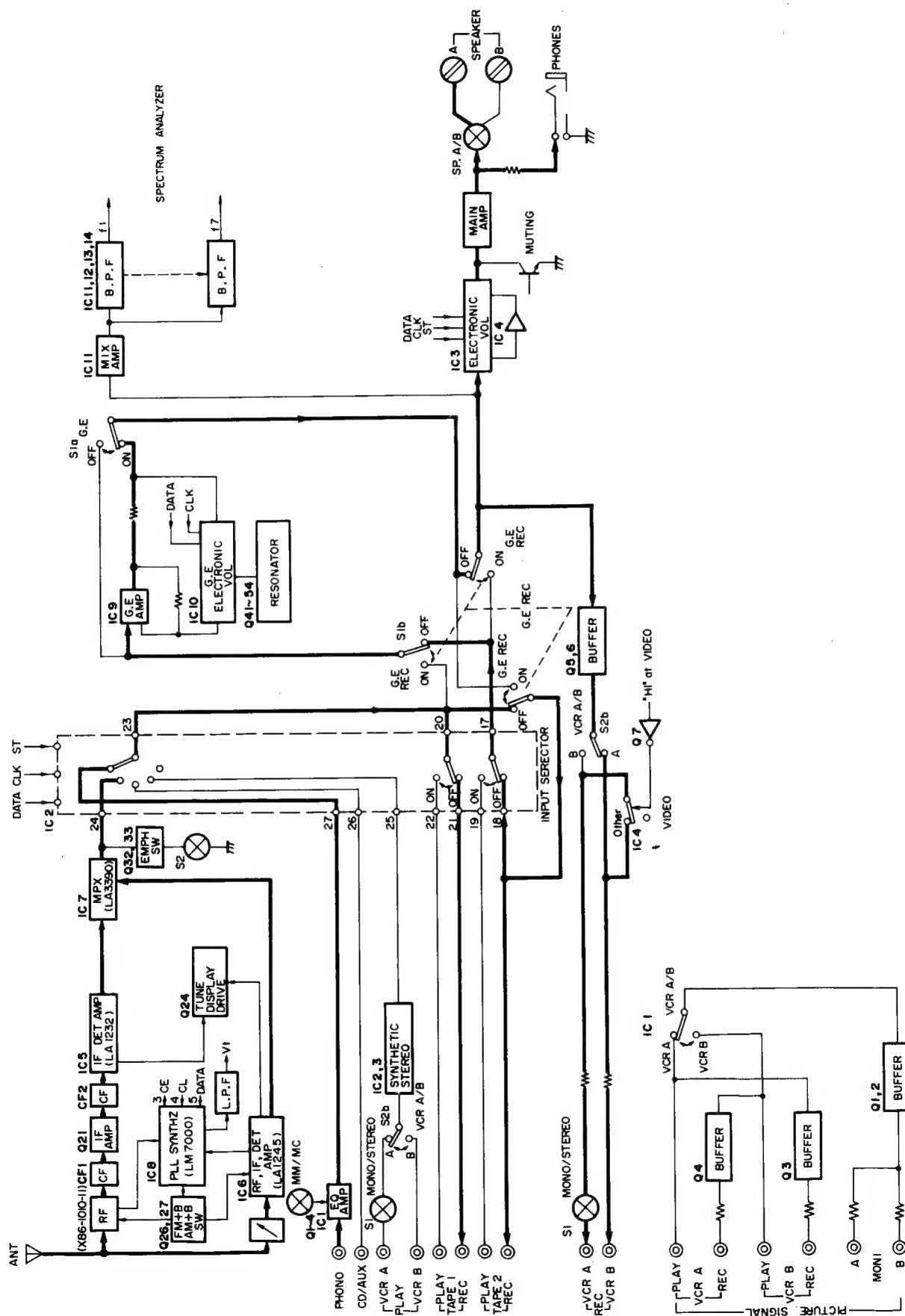
9. Unsolder the ground lead to the GND terminal ( 11 ).
10. Remove 7 screws retaining the antenna terminal and phono jacks ( 12 ).
11. Unsolder the ground lead from receiver pcb (X14-1780-10) (C/5) ( 13 ).
12. Remove 2 screws retaining the receiver pcb (X14-1780-10) (B/5) ( 14 ). This receiver pcb will be called mother pcb hereinafter.
13. Disconnect coaxial cable from coaxial receptacle. Lift the front side of the mother pcb and take it out to the side ( 15 ).



14. Plug in the video control pcb (X14-1790-10) (A/2) and receiver pcb (X14-1780-10) (D/5), once taken out in step 5, back to the mother pcb ( 16 ).
15. The KR-V95R can be checked at this condition by grounding the ground leads which were taken off from the chassis.  
The parallel cords disconnected in step 7 is a signal line to the power amp pcb ( 17 ).



## BLOCK DIAGRAM



# CIRCUIT DESCRIPTION

## Power amplifier unit (X07-2300-10)

Components	Functions	Operations
IC1	Speaker protection/Relay driver	
IC2	Remote control sig. receiver	
Q1 ~ Q4	Power amplifier (1st diff. AMP)	
Q5 ~ Q8	Power amplifier (2nd diff. AMP)	
Q9 ~ Q12	Power amplifier (3rd diff. AMP)	
Q13, 14	Clamper	
Q15, 16	Constant current load	
Q17 ~ Q20	Power amplifier (Bias)	
Q21 ~ Q24	Power amplifier (Driver stage)	
Q25 ~ Q28	Power amplifier (Final stage)	
Q29, 30	Power limiter detection	
Q31, 32	Overload detection	
Q33	Power limiter	
Q34 ~ Q36	+ 14 V AVR	
Q37 ~ Q40	+ 5 V AVR	Q39 detects POWER DOWN
Q41 ~ Q44	- 14 V AVR	
Q45 ~ Q46	- 20 V AVR	
Q47	- 30 V AVR	
Q48, 49	+ 5 V AVR for remote control function	
Q50 ~ Q52	Power supply relay (K2) driver	

## Display unit (X14-1770-10)

Components	Functions	Operations
IC1	Micro processor	
IC2	Graphic equalizer display	BPF outputs conv. for dynamic display
IC3, 4	BCD to decade decoder	Extends signal output line
Q1	Fip driver (tuned)	
Q2	Fip driver (stereo)	
Q3	Fip driver (defeat)	
Q4	MUT 2 sig.	Outputs for muting when VOL is mini.
Q5 ~ Q9	Fip driver	
Q10 ~ Q15	STROBE/DATA/CLK control	

## VIDEO control unit (X14-1790-10)

Components	Functions	Operations
IC1	Picture sig. selecting	
IC2, 3	Synthetic stereo	Buffer amplifier/3 BPF
IC4	REC sig. (Audio) selecting	
Q1 ~ Q4	Buffer amplifier (Picture sig.)	
Q5, 6	Buffer amplifier (Audio sig.)	
Q7	Inverter	

## CIRCUIT DESCRIPTION

### Receiver unit (X14-1780-10)

Components	Functions	Operations									
IC1	EQ amplifier										
IC2	Input selecting	Phono/CD/VCR/TUNER									
IC3	Electronic volume										
IC4	Buffer amplifier										
IC5	FM IF/DET										
IC6	AM RF/MIX/IF/DET										
IC7	FM MPX										
IC8	PLL synthesizer										
IC9	Buffer amplifier (Graphic equalizer)										
IC10	Electronic volume for Graphic equalizer										
IC11 (1/2)	Mixing amplifier										
(2/2)	B.P.F										
IC12~IC14	B.P.F										
Q1~Q4	EQ AMP 1st stage										
Q5~Q7	Muting (Audio sig.)										
Q21	FM 1st IF										
Q24	Tuning display drive										
Q26, 27	+ B AM/FM switching	<table> <tr> <td>MODE \ Tr</td><td>Q26</td><td>Q27</td></tr> <tr> <td>AM</td><td>OFF</td><td>ON</td></tr> <tr> <td>FM</td><td>ON</td><td>OFF</td></tr> </table>	MODE \ Tr	Q26	Q27	AM	OFF	ON	FM	ON	OFF
MODE \ Tr	Q26	Q27									
AM	OFF	ON									
FM	ON	OFF									
Q28, 29	LPF (PLL synthesizer)										
Q30	Ripple filter										
Q31	+ 5 Volt AVR										
Q41	Simulated inductor										
Q55, 56	Clamper	Generats reference voltage.									

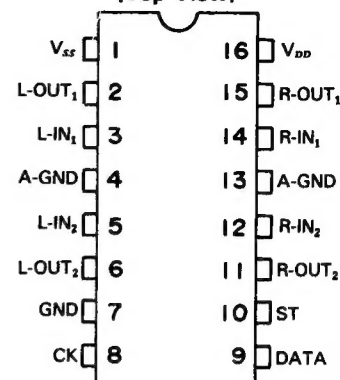
## CIRCUIT DESCRIPTION

**Electronic volume: IC3 (TC9176P)**

The TC9176P is an electronic volume specially developed for audio equipment.

The volume and balance can be controlled by inputting external serial data.

- Volume control possible in 40 steps; 0 dB to  $-76$  dB in 2 dB steps plus  $-\infty$ .
- Built-in L and R channel volumes can be controlled independently, making possible the balance control function.

**Functions of terminals (TC9176P)****Pin configuration****TC9176P  
(Top View)**

No.	Symbol	Functions	Remarks
2 15	L-OUT1 R-OUT1	10 dB step attenuator output. Signals applied to IN are attenuated into 8 steps; from 0 to $-70$ dB in 10 dB steps.	
3 14	L-IN1 R-IN1	10 dB step attenuator input	
4 13	A-GND	AC ground terminals	
5 12	L-IN2 R-IN2	2 dB attenuator input	
6 11	L-OUT2 R-OUT2	2 dB attenuator output. Signals applied to IN are attenuated in 5 steps; from 0 to 8 dB in 2 dB steps.	
9	DATA	Attenuation/channel selection data input. The 20 bit data is input with the CK signal.	
8	CK	Clock input Clock input is used to fetch the data input from the DATA terminal.	
10	ST	Strobe input The attenuation/channel selection data input from the DATA and CK terminals are latched when the level of this terminal becomes "H". Old data is not changed when "H" level is not applied to this terminal.	
16 7 1	V <sub>DD</sub> GND V <sub>SS</sub>	(+) power supply terminal Ground terminal (-) power supply terminal	

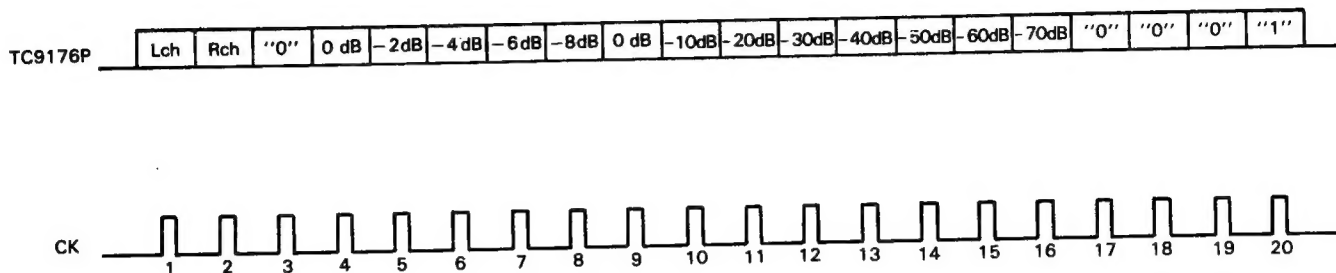
## CIRCUIT DESCRIPTION

### Operation description

#### Setting the amount of attenuation

Desired attenuation data can be input to the TC9176P via the DATA, CK and ST terminals. This data consists of 20 bits.

(As the TC9176P is not provided with loudness control, the level of the 3rd bit is always "L".)



For example, when a data (11001000001000000001) is input, the amount of attenuation is -22 dB.

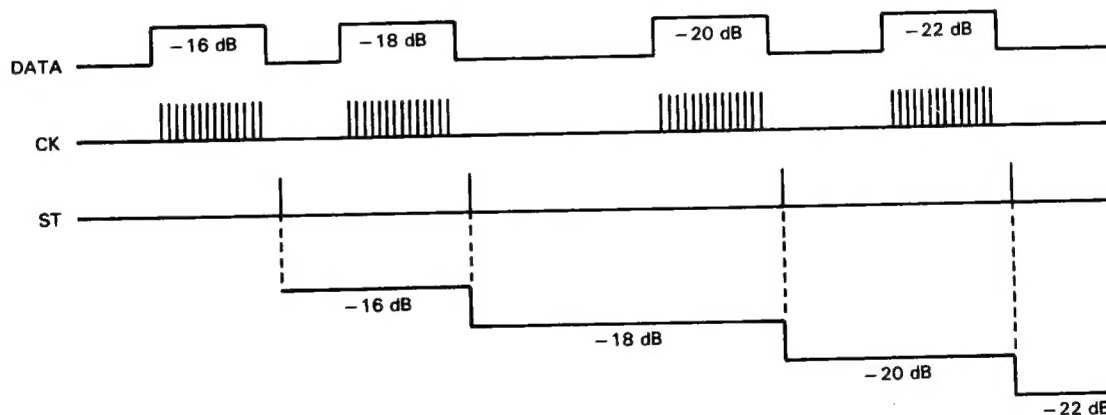
Data bits 1 and 2 are used to select the L and R channels. With the TC9176P, the 3rd bit is always "0".

Bits 4 to 8 sets the 2 dB step attenuator and bits 9 to 16 sets the 10 dB step attenuator.

Bits 17 to 20 are chip select bits. With the TC9176P, selection is performed by (0001) and it is not operative with bits other than (0001).

-∞ attenuation refers to the data for -78 dB. Consequently, one step above -∞ is -76 dB.

All changes to newly input data are synchronized with the rises of ST signal.



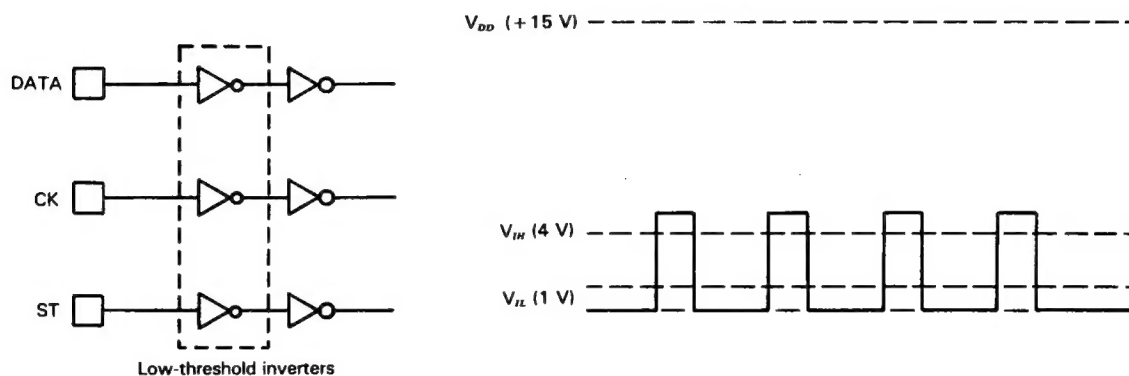


## CIRCUIT DESCRIPTION

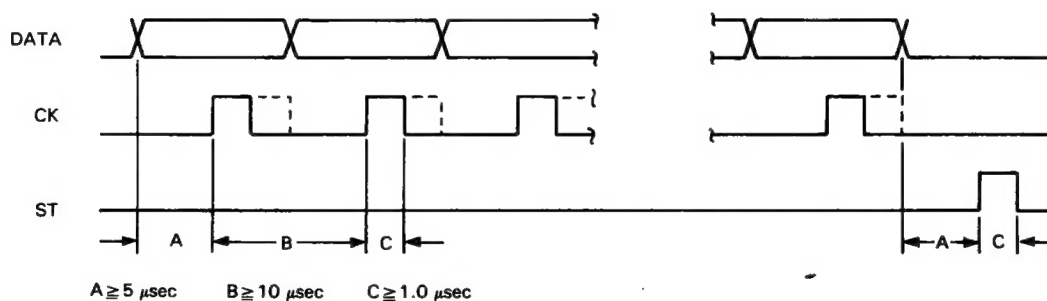
### DATA, CK and ST inputs

Although the TC9176P usually operates on two power supplies (+) and (−), the DATA, CK and ST inputs are operated only with the (+) power supply because it incorporates a level shifter.

The input inverters for these three input terminals have low input threshold voltages and operate on the 5 V logic level.



DATA, CK and ST are input at timings shown below.



## CIRCUIT DESCRIPTION

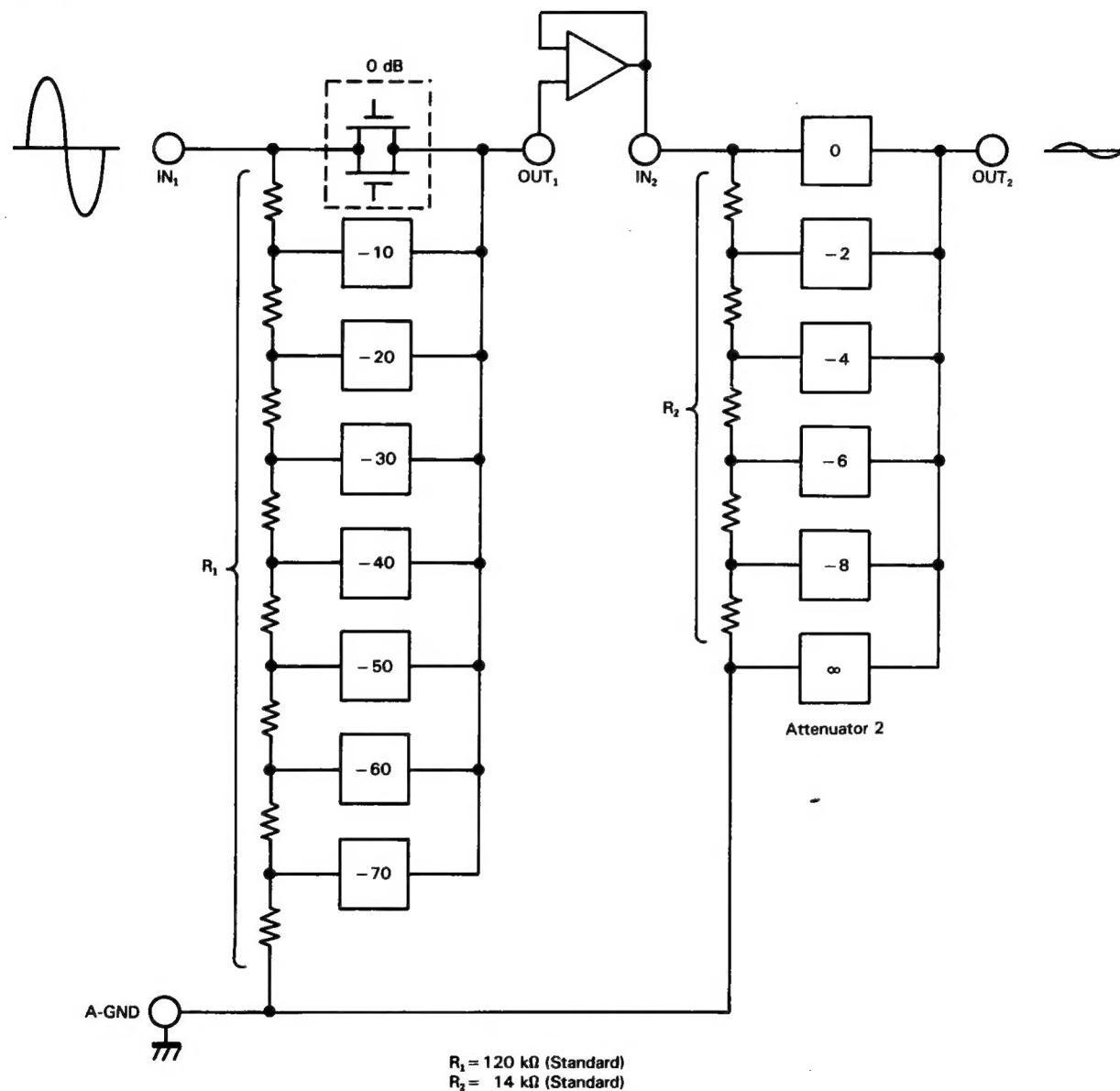
### Attenuators

The attenuator section consists of diffused resistor arrays and analog switches.

Attenuator 1 allows attenuation from 0 to 70 dB in 10 dB

steps and Attenuator 2 attenuation from 0 to 8 dB in 2 dB steps. Together, a total attenuation from 0 to 76 dB is possible in 2 dB steps.

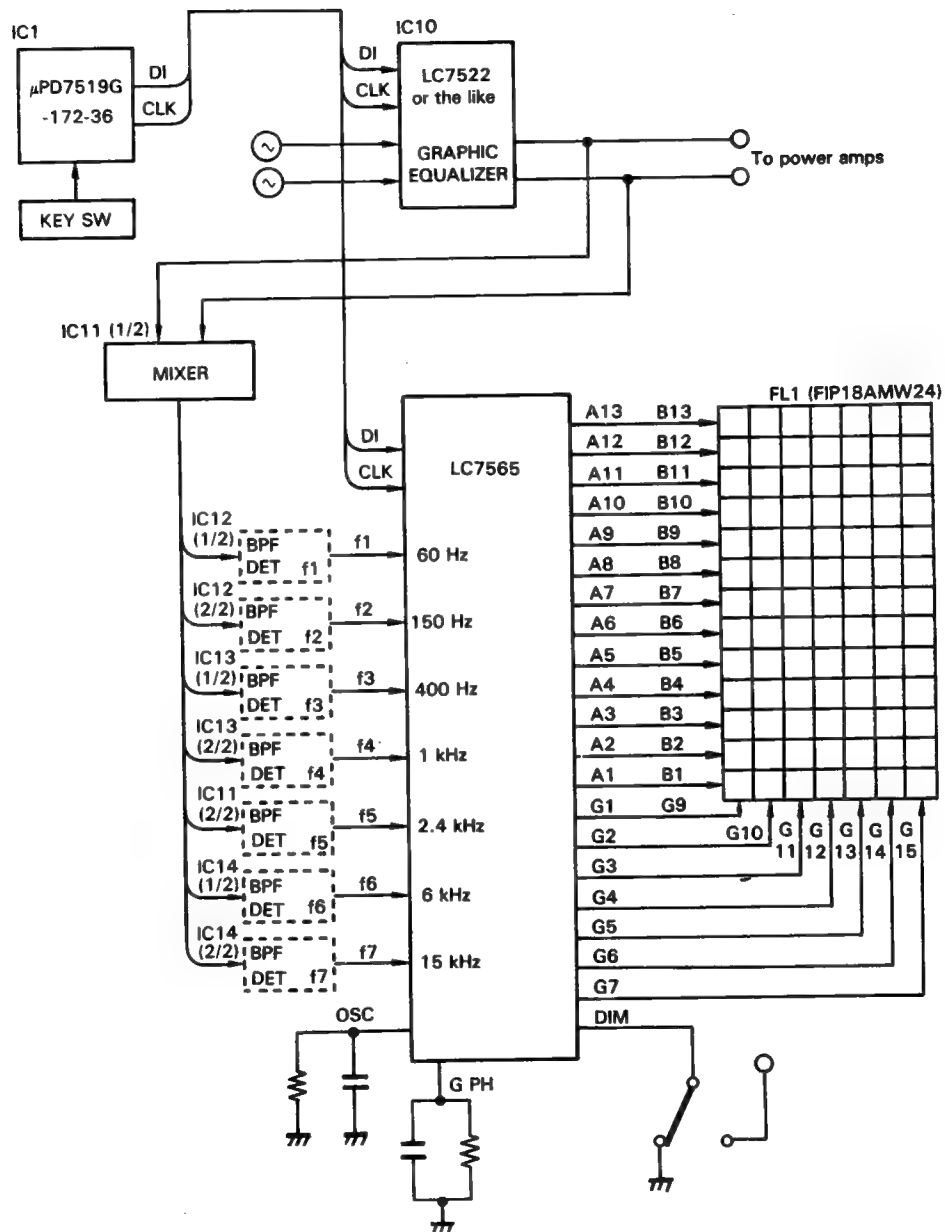
### Data Codes



# CIRCUIT DESCRIPTION

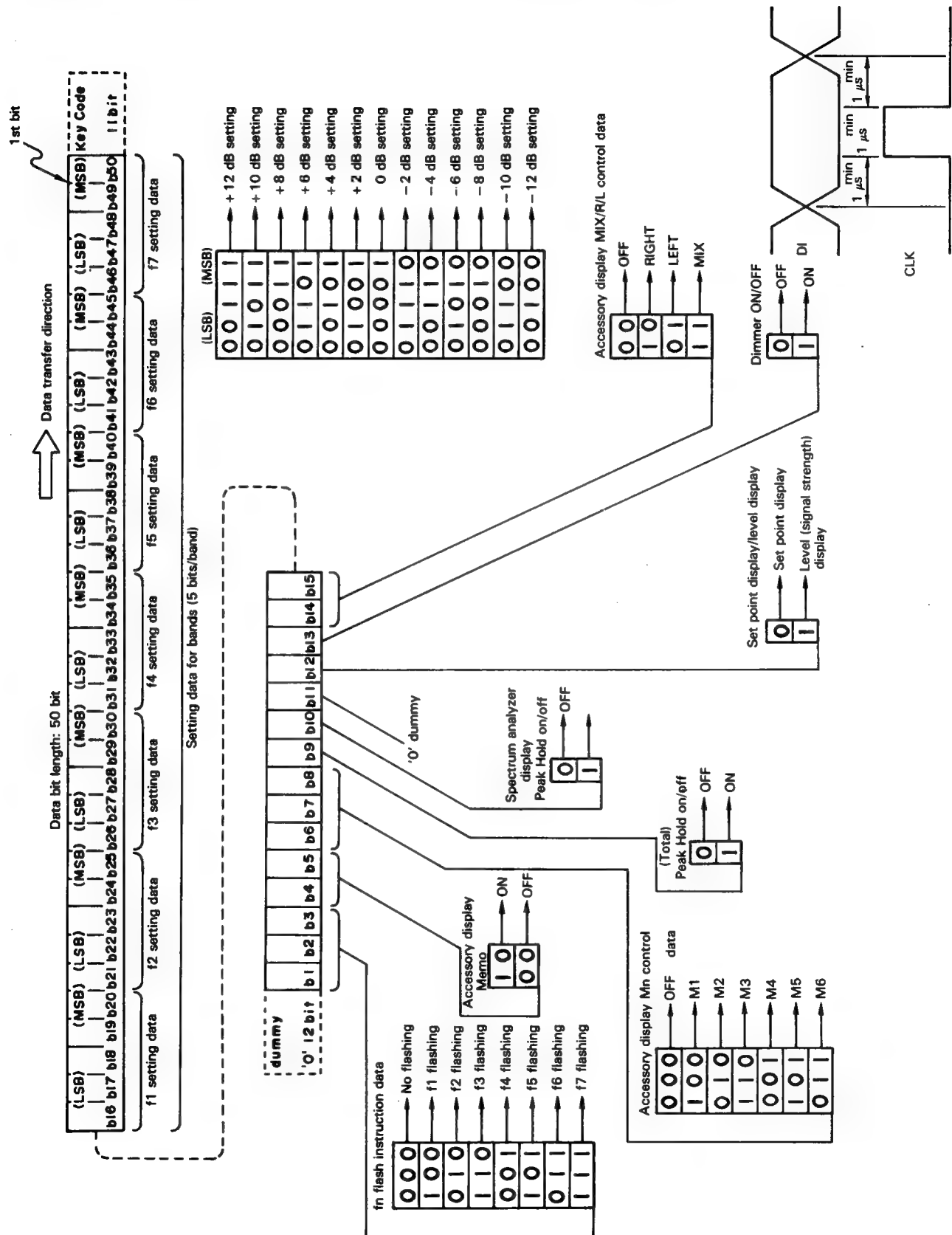
## FLT Driver: IC 2 (LC7565)

Fluorescent display tube driver for display of graphic equalizer  
LC7522








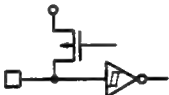
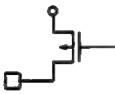
## CIRCUIT DESCRIPTION

### Data codes



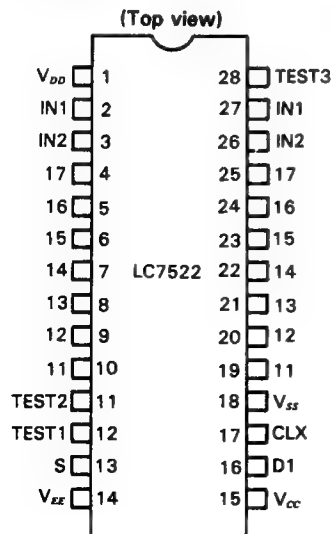
# CIRCUIT DESCRIPTION

## Description of terminals

Name	Pin No.	Type	Description																																																								
V <sub>DD</sub>	42		• Power supply terminal, +5 V type.																																																								
V <sub>SS</sub>	19		• Power supply terminal, GND.																																																								
DI	17		• CPU data input terminal • Schmitt inverter type																																																								
CLK	18		• CPU CLK signal input terminal • Schmitt inverter type																																																								
S1	15		• Selection terminal when more than one chip (max. 4 chips) are used.																																																								
S2	16		• <table><tr><th>S2</th><th>S1</th><th colspan="10">Key code</th><th colspan="2">Last bit</th></tr><tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>1</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr></table>	S2	S1	Key code										Last bit		1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	0	0	1	0	1	0	0	0	1	1	1	1	1	1	0	0	1	0	0	1	1
S2	S1		Key code										Last bit																																														
1	1		1	1	1	1	1	0	0	1	0	1	1	1																																													
1	0	1	1	1	1	1	0	0	1	0	1	0	0																																														
0	1	1	1	1	1	1	0	0	1	0	0	1	1																																														
Table S1 = S2 = "0"																																																											
G.PH	21		• Connection terminal for C and R which determine the peak hold reset time of graphic equalizer's spectrum analyzer display																																																								
T.PH	22		• Connection terminal for C and R which determine the peak hold reset time of total display (Not connected)																																																								
DIM	32		• Terminal for direct drive of IC (when it is not controlled by the CPU) and for dimmer control • Dimmer ON by "1", OFF by "0"																																																								
f1 - f7, T	31 - 25 24		• Input terminal for audio signal rectifier voltage																																																								
OSC	20		• Open-drain type output buffer • Connection terminal for external C and R for the oscillator																																																								
A1 - A13	2 - 14		• Open-drain driver • Anode drive																																																								
G1 - G9	41 - 33		• Open-drain driver • Grid drive																																																								


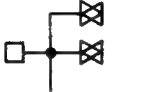


## Graphic equalizer; IC10 (LC7522)

### Pin configuration

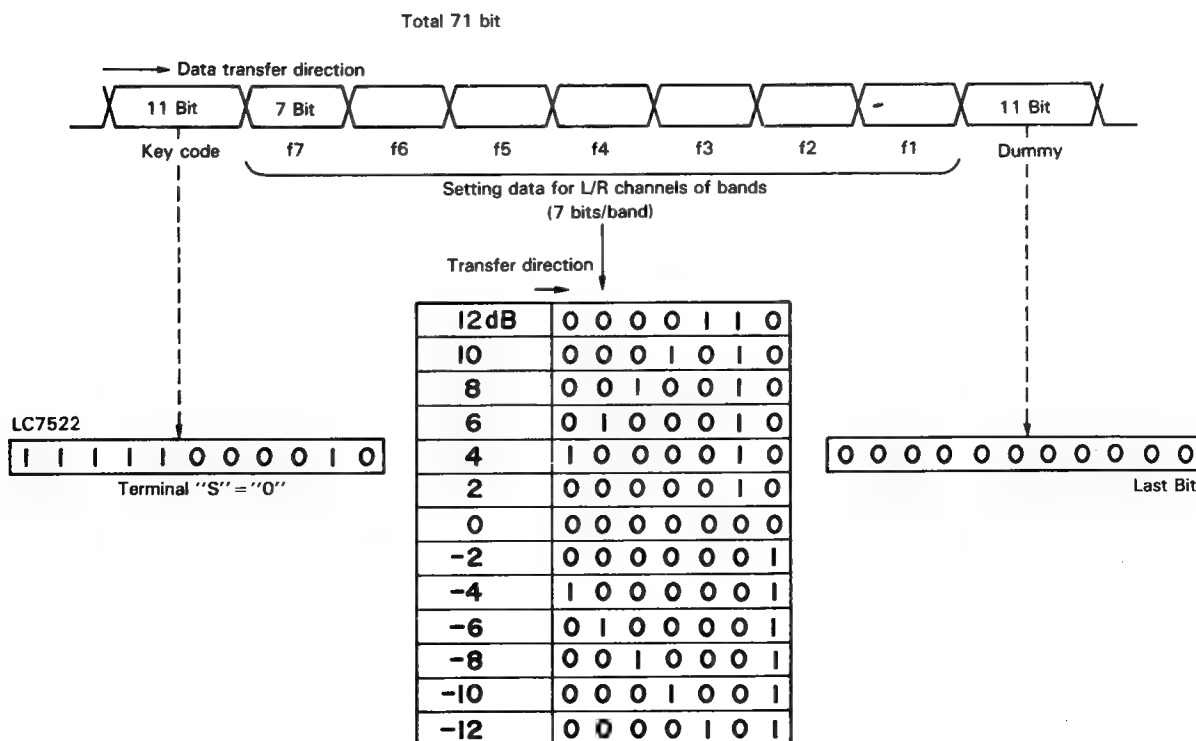
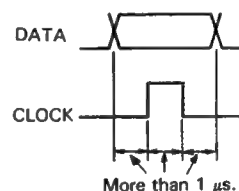


## CIRCUIT DESCRIPTION

### Description of terminals

Name	Type	Description
$V_{DD}$ $V_{SS}, V_{EE}$ $V_{CC}$		Power supply terminal + 7 V (typ.) audio signal power supply Power supply terminal 0 V Power supply terminal + 5 V (typ.)
DI		<ul style="list-style-type: none"> <li>CPU data input terminal</li> <li>Schmitt inverter type</li> </ul>
CLK		<ul style="list-style-type: none"> <li>CPU clock signal input terminal</li> <li>Schmitt inverter type</li> </ul>
IN1 IN2		<ul style="list-style-type: none"> <li>Audio signal input terminals</li> <li>IN1 is normally connected with the inverted input of the op-amp.</li> <li>IN2 normally connected with the non-inverted input of the op-amp.</li> <li>Separately provided for L and R.</li> </ul>
f1 - f7		<ul style="list-style-type: none"> <li>BPF connection terminals</li> <li>f1 to f7 <math>\times</math> L/R = Total 14 terminals</li> </ul>
S		<ul style="list-style-type: none"> <li>Selection terminal for two-chip operation</li> <li>Key code 7C2 with input "0" - Connected to <math>V_{EE}</math></li> </ul>
TEST1 TEST2 TEST3		<ul style="list-style-type: none"> <li>Terminals for IC internal testing</li> <li>Set to GND</li> </ul>

### Data codes



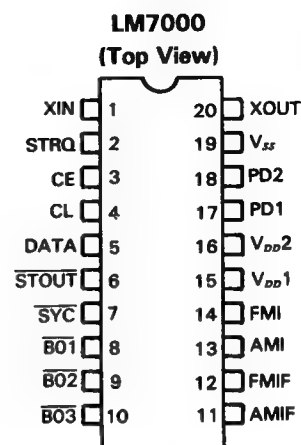
# CIRCUIT DESCRIPTION

## PLL Frequency synthesizer for electronic tuning; IC8 (LM7000)

### Features

- High-speed program divider with possibility of direct dividing of FM band VCO.
- 7 reference frequencies: 100, 50, 25, 10, 9, 5 and 1 kHz
- Band switching output (3-bit)
- Clock output for controller (400 kHz)
- Timebase output for clock (8 Hz)
- Serial data input (via CE, CL and DATA terminals)
- IF counter circuit built in
  - FM :  $\pm 10$  kHz
  - MW/SW :  $\pm 3$  kHz
  - LW :  $\pm 0.6$  kHz

### Pin configuration

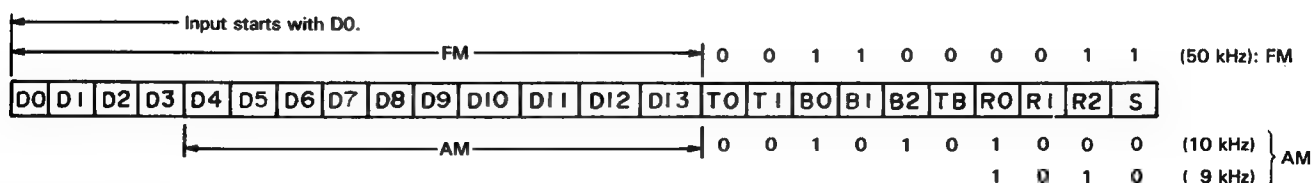
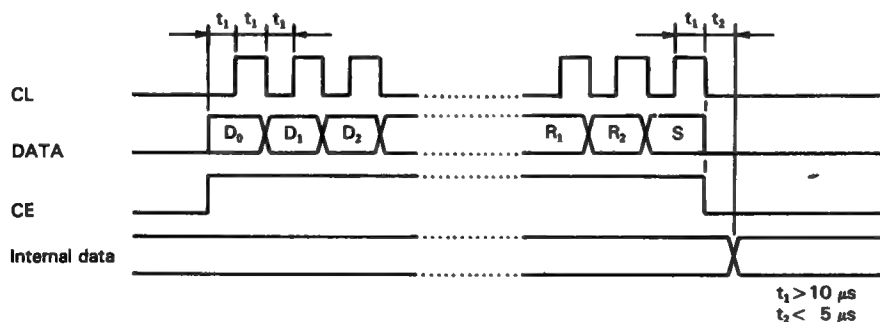


### Description of terminals

SYC : Clock for controller (400 kHz)  
 XIN, XOUT : X'tal OSC (7.2 MHz)  
 Feedback resistor attached externally  
 FMI, AMI : Local oscillator signal inputs  
 CE, CL, DATA : Data inputs  
 B01, B02, B03 : Band data outputs  
 B01 can be assigned for timebase output (8 Hz)

STRQ : IF counting request input  
 STOUT : Auto-search stop signal output  
 V<sub>DD1</sub>, V<sub>DD2</sub>, V<sub>ss</sub> : Power supplies (V<sub>DD2</sub> is the backup power supply.)  
 AMIF, FMIF : IF signal inputs  
 PD1, PD2 : Charge pump outputs

### Data inputs



1) D0 (LSB) - D13 (MSB): Dividing number data:

FMI: D0/D13  
 AM1: D4/D13



1	0	1	0	0	0	0	0	0	1	0	1	1	1	Number of FMI dividing = 14853
LSB												MSB		
X	X	X	X	0	0	0	0	1	0	1	1	1		Number of AMI dividing = 928
				LSB								MSB		

## CIRCUIT DESCRIPTION

2) T0, T1: For testing (0,0) of LSI.

3) B0 to B2, TB: Band data.  
Timebase data

Input				Output		
B0	B1	B2	TB	B01	B02	B03
0	0	0	0	*	*	*
0	0	1	0	0	0	1
0	1	0	0	0	1	0
0	1	1	0	0	1	1
1	0	0	0	1	0	0
1	0	1	0	1	0	1
1	1	0	0	1	1	0
1	1	1	0	1	1	1
0	0	0	1	TB	*	*
X	1	0	1	TB	1	0
X	0	1	1	TB	0	1
X	1	1	1	TB	1	1

←AM (9 kHz)  
←FM (50 kHz)

\* : Determined by R0 to R2.  
X : Either  
TB : 8 Hz

4) R0 to R2: Reference frequency data

R0	R1	R2	fref	B01	B02	B03	IF counting
0	0	0	100 kHz	1	1	0	10.7 MHz $\pm$ 10 kHz
0	0	1	50 kHz	1	1	0	
0	1	0	25 kHz	1	1	0	
0	1	1	5 kHz	0	0	1	450 kHz $\pm$ 3 kHz
1	0	0	10 kHz	1	0	1	
1	0	1	9 kHz	1	0	1	
1	1	0	1 kHz	0	1	1	450 kHz $\pm$ 0.6 kHz
1	1	1	5 kHz	0	0	1	450 kHz $\pm$ 3 kHz

Note: When B0 to B2 = 0

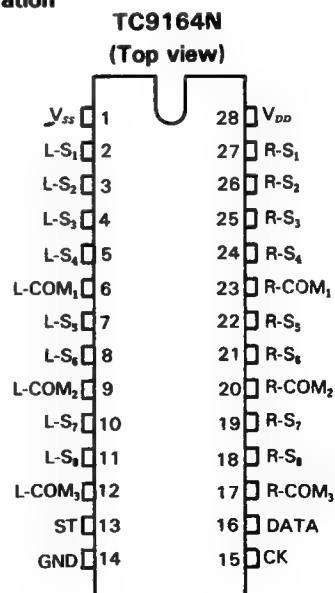
5) S: Dividing select data  
1: FM  
0: AM

### High-voltage resistant analog function switch array; IC2 (TC9164N)

The TC9164N is an analog switch array resistant to high voltages. Control of analog switches is possible by inputting specified serial data.

Analog switches can be controlled independently so the switch array can cover a wide range of operations according to its external connection.

### Pin configuration





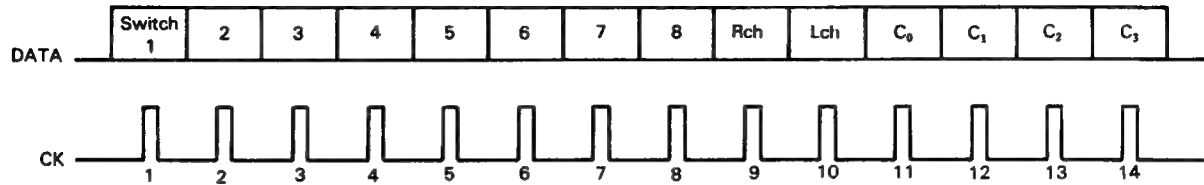
## CIRCUIT DESCRIPTION

### Operation description

#### Data input

Analog switches of the TC9164N can be controlled as desired by inputting specified data to the DATA, CK and ST terminals.

The data is composed of 14 bits and the composition is as shown below.



Bits 1 to 8 correspond to analog switches 1 to 8: Set the bits of the switches to turn ON to level "1". Bits 9 and 10 are the L/R channel selector bits: As channels can be selected by setting these bits to level "1", channels can be selected simultaneously ("1", "1") or independently ("1", "0" or "0", "1").

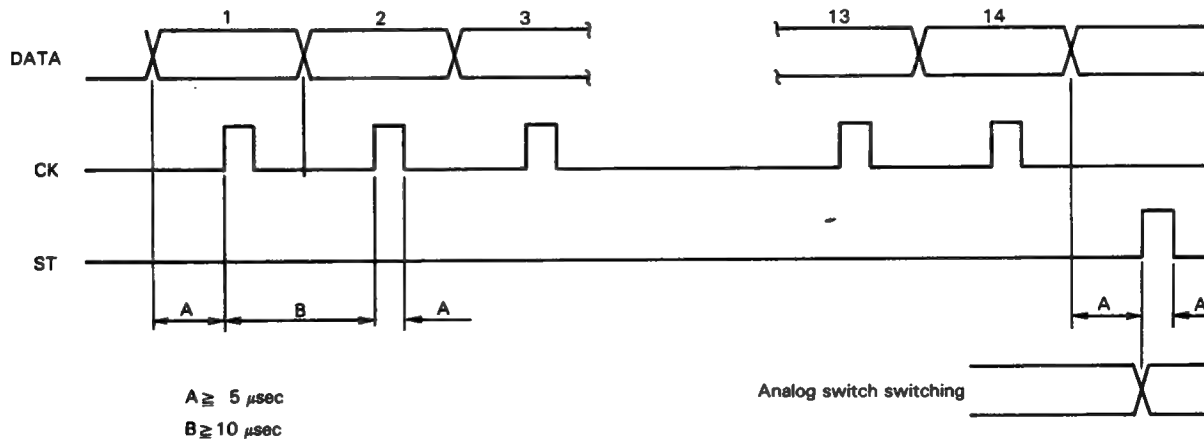
Bits 11 to 14 are code bits used for selecting chips.

Codes are specified as shown below.

	C <sub>0</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>
TC9164N	0	1	0	0

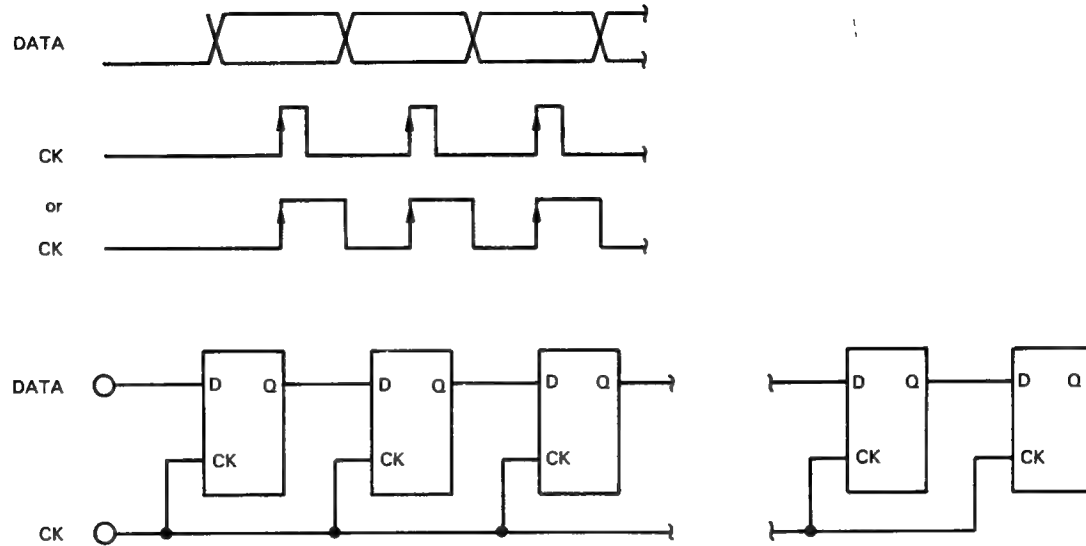
### Timings of DATA, CK and ST

The DATA, CK and ST timings are input to the conditions shown below.



## CIRCUIT DESCRIPTION

The DATA inputs are input in sequence to the internal shift register at the rises of the CK inputs.



The final ST signal is used to transfer the input data from the shift register to latch circuit, and data is updated from old data to new data.

## CIRCUIT DESCRIPTION

### Key matrix distribution

The key matrix uses the outputs obtained from the microprocessor's port outputs using 4 to 10 decoders ( $Q_0$

$-Q_9$ ) and the microprocessor's output ports for the strobe signals, and four return signal ports are used to make the matrix.

OUTPUT \ INPUT	P10 (20)	P11 (21)	P12 (22)	P13 (23)
$Q_0$	0	4	8	FM
$Q_1$	1	5	9	AM
$Q_2$	2	6	DOWN	MEMORY
$Q_3$	3	7	UP	AUTO/MANUAL
$Q_4$	GE MEMORY	GE f4	**	GE A
$Q_5$	GE f1	GE f5	GE 1	GE B
$Q_6$	GE f2	GE f6	GE 2	GE DOWN
$Q_7$	GE f3	GE f7	GE 3	GE UP
$Q_8$	POWER	TAPE1	VOL DOWN	DIRECT
$Q_9$	PHONO	TAPE2	VOL UP	PRESET SCAN
P30 (59)	TUNER	VIDEO	BAL R	PRESET FUNCTION A/B
P31 (60)	AUX/CD	MUTE	BAL L	
P32 (61)	*REMOTE CONTROL or NOT	*(J) DESTINATION	*BAND 0	*BAND 1

- Numbers inside ( ) are the pin Nos. of the microprocessor.
- Switches are momentary switches except those marked. \* which are diode switches.
- KEY input levels are Active High.

- \*\*EQ/ANALYZER ON/OFF SW; (KR-V125R and KR-V95R).
- \*\*EQ/POWER LEVEL ON/OFF SW; (Except KR-V75R)

### Description of key matrix

#### Functions of initial setting diode matrix

The initial setting diode matrix includes the following four types of data, which are read at the time of reset.

#### (1) Remote controlled or not

0: Not remote controlled. Resetting always leads to the power ON status.

1: Remote control function used. Resetting leads to the previous power status. The initial condition is the power OFF status.

#### (2) (J) destination

0: Destination is other than (J) so switches BAND0 and BAND1 are effective.

1: Destination is set for (J) so switches BAND0 and BAND1 are ineffective.

#### (3) BAND0, BAND1

Effective for models with destinations other than for (J), so that the FM and AM channel spaces can be set.

The reception conditions of different models with different destinations are shown below.

Band	Destination J	Band 0	Band 1	Reception Frequency Range	Channel Space	Reference Frequency	Intermediate Frequency
FM	0	0	—	87.5 ~ 108.0 MHz	100 kHz	50 kHz	10.7 kHz
	0	1	—	87.5 ~ 108.0 MHz	50 kHz	50 kHz	10.7 MHz
	1	—	—	76.0 ~ 90.0 MHz	100 kHz	50 kHz	— 10.7 MHz
AM	0	—	0	530 ~ 1610 kHz	10 kHz	10kHz	450 kHz
	0	—	1	531 ~ 1602 kHz	9 kHz	9 kHz	450 kHz
	1	—	—	531 ~ 1602 kHz	9 kHz	9 kHz	450 kHz

## CIRCUIT DESCRIPTION

### • Functions of momentary switches

Symbols	Functions
POWER	<p>Receiver system power supply ON/OFF key. Power ON/OFF is inverted each time this key is pressed and the POWER terminal (pin 13) is turned ON/OFF. At initial power switching (when the main power switch is set to ON after connecting the power plug), operation starts with the Power OFF status (KR-V125R/V95R/V75R).</p> <p>The initial Power ON status condition is as follows.</p> <ul style="list-style-type: none"> <li>• Input selector: TUNER</li> <li>• Tuner condition : FM lowest value, MANUAL Tuning, all preset memories at the FM lowest value.</li> <li>• Volume : -56 dB</li> <li>• Balance : Center</li> <li>• Graphic equalizer memories: All flat = <math>\pm 0</math> dB</li> </ul> <p>In the Power ON status, all keys (including remote control) are acceptable. In the power OFF status, only the POWER key is acceptable and other keys are not acceptable. After this, last statuses (statuses previous to switching power OFF) are recalled by the Power ON statuses. When the Input Selector was set to PHONO before switching power OFF, it becomes PHONO when power is next switched ON. When the volume was -40 dB, it also becomes -40 dB.</p>
PHONO TUNER AUX/CD TAPE 1 VIDEO	<p>Input selector keys. Pressing one of these keys switches the position and the input selector character display as shown below is displayed, except that frequency is displayed when TUNER is selected.</p> <p>The input selector key is invalid when the key the same as the current position is pressed. Muting signal (MUTE 1) is output during switching when the key operation is valid.</p> <p>TAPE 1 is treated as one of sources. The TAPE 1 REC switch is OFF in the TAPE 1 position and ON in other positions.</p> <p>PHONO TUNER AUX/CD TAPE 1 VIDEO</p>
TAPE 2	<p>TAPE 2 is initially set to MONITOR. Switching between SOURCE/MONITOR is possible using this key. Muting signal (MUTE 2) is output during switching. The TAPE 2's PLAY switch is OFF and REC switch is ON in SOURCE mode. The PLAY switch is ON and REC switch is OFF in MONITOR mode.</p> <p>The Input selector uses an analog function switch array IC TC9164N, the switch location of which is as shown below. (Refer to page 17)</p>
VOL. UP VOL. DOWN	<p>These are the audio volume UP/DOWN keys. The volume control is performed by electronic volume IC TC9176P, which is controlled by the microprocessor. The volume is variable in 40 2-dB steps by pressing the VOL. UP or VOL. DOWN key. (<math>-\infty</math>, -76 to -0 dB)</p> <p>When power is switched ON, -56 dB is output as the initial value. The attenuation is increased or decreased by each press of the VOL. UP or VOL. DOWN key.</p> <p>When a key is held pressed for more than approx. 0.5 sec, the amount of attenuation is varied until the key is released at a speed of approx. 120 ms/step. However, the attenuation does not vary when the VOL. MAX value (-0 dB) is reached in UP operation or when the VOL. MIN value (<math>-\infty</math> dB) is reached in DOWN operation.</p> <p>The value of attenuation is displayed digitally during the VOL. UP/DOWN key operations.</p> <p>- 3 8 d B</p> <p>However, during direct input, auto-scanning and preset scanning, the frequency display is given priority and the value of attenuation is not displayed. The volume is also displayed permanently by the 11-point bar graph displays.</p>
MUTE	<p>The audio volume can be temporarily reduced by -20 dB from the current position by pressing this key. Setting and release of MUTING (-20 dB) is performed with this key and release is not possible even by switching power ON/OFF, etc. MUTING (-20 dB) is performed by electronic volume IC TC9176P which varies the output data. The MUTING (-20 dB) display blinks during this mode.</p>
BAL R BAL L	<p>These are the balance control keys. Each of the L and R keys internally has a 4-bit, 10-step counter, which counts up/down when the key is pressed. The electronic volume data is elaborated using the counter value and output to control electronic volume IC TC9176P. 21 balance positions are provided.</p> <p>Each press of the BAL R/L key shifts the balance position by one step. When a key is held pressed for approx. more than 0.5 sec, the positions are scanned at a speed of approx. 300 ms/step until it stops when the R or L end position is reached.</p>
GE UP GE DOWN	<p>These keys are used to set the boost, cut, etc. of the graphic equalizer. These keys are valid only when the graphic equalizer display is flashing after GE keys f1 (60 Hz) to f7 (15 kHz) have been operated. The graphic equalizer level can be varied in 13 2 dB steps between MAX. +12 dB and MIN. -12 dB. This operation is performed using graphic equalizer/ spectrum analyzer display IC LC7565 and graphic equalizer IC LC7522.</p> <p>Each press of a key varies the level of the graphic equalizer for the specified frequency band by 1 step. When the key is held pressed for approx. more than 0.5 sec, the level is varied UP or DOWN at a speed of 120 ms/step.</p>

# CIRCUIT DESCRIPTION

Symbols	Functions																								
GE f1 (60 Hz) GE f2 (150 Hz) GE f3 (400 Hz) GE f4 (1 kHz) GE f5 (2.4 kHz) GE f6 (6 kHz) GE f7 (15 kHz)	These keys are used to select the frequency bands of the graphic equalizer when setting its levels. When any of these keys is pressed, the display changes to the graphic equalizer display even during spectrum analyzer display, with the graphic equalizer display corresponding to the frequency band selected flashing to indicate that the graphic equalizer can be operated. If the GE UP or DOWN key is not pressed for approx. 5 seconds, flashing stops and the display is changed to the ordinary graphic equalizer display.																								
GE MEMORY	This key is used to write the graphic equalizer condition in the graphic equalizer memory. When this key is pressed, "MEMORY" lights, "◀" on the side of the GE 1 to 3 displays flashes, and graphic equalizer memory storage becomes possible. This condition lasts for approx. 5 sec and the current graphic equalizer condition can be stored in the specified memory by pressing one of GE 1 to 3 keys during this period. This key is valid only during graphic equalizer display mode.																								
GE 1 GE 2 GE 3	These graphic equalizer preset keys correspond to the three programmable graphic equalizer memories and are used for write and read operations of graphic equalizer memories. <ul style="list-style-type: none"><li>For programming, press the GE MEMORY key, then press one of the GE 1 to 3 keys within approx. 5 sec (while "MEMORY" is lit and "◀" is flashing). The current graphic equalizer condition is written in the graphic equalizer memory corresponding to the key selected.</li><li>For recalling, press one of the GE 1 to 3 keys. The corresponding graphic equalizer condition will be recalled.</li></ul> In either cases, if normal display mode is set for the spectrum analyzer display, graphic equalizer display lasts for approx. 5 sec, after which the spectrum analyzer display resumes.																								
GE A GE B	Used to recall the graphic equalizer's preset memories. Pressing one of these keys recalls the corresponding graphic equalizer condition. The condition of the preset memories is as follows: <table><tr><td>Frequency band Preset memory</td><td>f1</td><td>f2</td><td>f3</td><td>f4</td><td>f5</td><td>f6</td><td>f7</td></tr><tr><td>GE A (Loudness)</td><td>+4dB</td><td>+2dB</td><td>±0dB</td><td>-2dB</td><td>-2dB</td><td>±0dB</td><td>+2dB</td></tr><tr><td>GE B (Presence)</td><td>+2dB</td><td>±0dB</td><td>-2dB</td><td>+2dB</td><td>+4dB</td><td>±0dB</td><td>-2dB</td></tr></table>	Frequency band Preset memory	f1	f2	f3	f4	f5	f6	f7	GE A (Loudness)	+4dB	+2dB	±0dB	-2dB	-2dB	±0dB	+2dB	GE B (Presence)	+2dB	±0dB	-2dB	+2dB	+4dB	±0dB	-2dB
Frequency band Preset memory	f1	f2	f3	f4	f5	f6	f7																		
GE A (Loudness)	+4dB	+2dB	±0dB	-2dB	-2dB	±0dB	+2dB																		
GE B (Presence)	+2dB	±0dB	-2dB	+2dB	+4dB	±0dB	-2dB																		
Spectrum analyzer ON/OFF (EQ/ANALYZER) (KR-V125R V95R)	This key switches between the spectrum analyzer and graphic equalizer display modes. When the key is pressed, the spectrum analyzer display is changed to graphic equalizer display and graphic equalizer display is changed to spectrum equalizer display. The graphic equalizer operation ready status is released and changed to the spectrum display by this key. When the graphic equalizer display has been displayed by recalling a graphic equalizer memory, the condition before the recall is displayed; the graphic display is not changed when the previous condition was graphic display and is changed to spectrum analyzer display when the previous condition was spectrum analyzer display.																								
EQ/POWER LEVEL (KR-V75R)	This key switches between the graphic equalizer and power level display modes. When this key is pressed, the graphic equalizer display is changed to power level display and power level display is changed to graphic equalizer display. The graphic equalizer operation ready status is released and changed to the power level display by this key. When the graphic equalizer has been displayed by recalling a graphic equalizer memory, the condition before the recall is displayed; the graphic equalizer display is not changed when the previous condition was graphic equalizer display and is changed to power level display when the previous condition was power level display.																								
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	Digit keys, preset channel memory programming keys and recall keys. (1) Operation as digit keys. Input the frequency using these keys in the direct frequency input operation. (2) Operation as preset channel memory keys. Each of these keys corresponds to two preset channel memories. The two memories are distributed by the A and B preset functions. <ul style="list-style-type: none"><li>Programming Within approx. 5 sec. of pressing the MEMORY key, select A or B using the Preset Function key, then press one of keys 0 to 9. The frequency being tuned in is programmed in the memory corresponding to the key pressed.</li><li>Recalling By combination of keys 0 to 9 and the Preset Function key, a preset memory corresponding to the selected keys is recalled.</li></ul>																								

## CIRCUIT DESCRIPTION

Symbols	Functions
UP DOWN	<p>When these auto/manual tuning keys are pressed, the following operations are performed. These keys are valid only with the TUNER position of the Input Selector.</p> <p>(1) When the AUTO/MANUAL switch (Tuning mode) is set to AUTO, pressing the UP key scans the frequency upward in sawtooth wave mode and pressing the DOWN key scans it downward. When the input level at the SD terminal (pin 10) becomes Low at this time, frequency scanning is stopped and auto-tuning is stopped.</p> <p>(2) When the AUTO/MANUAL switch is set to MANUAL, pressing the UP or DOWN key changes the tuning frequency by one step (channel space) up or down. When a key is held depressed for more than approx. 0.5 sec, the frequency is scanned up/down at a speed of 125 ms/step until the key is released. At band edges, tuning is interrupted for approx. 0.5 sec.</p>
FM AM	FM/AM band switching keys. When one of the keys is pressed, the reception band is switched to the corresponding band, at the last frequency, which is the frequency the unit was tuned in the last time the band was selected. This key is valid only in the TUNER position and is invalid when the key the same as the present band is pressed.
MEMORY	Used to program a new frequency in the preset channel memory. Within 5 sec of pressing this key, select A or B of the Preset Function key, then press one of the 10 digit keys so that the frequency being tuned in is programmed in the preset channel memory corresponding to the keys pressed. However, this key is valid only in the TUNER position.
AUTO/MANUAL	Tuning mode switching keys. The modes are alternated each time this key is pressed. When this key is pressed during auto-tuning, autotuning stops and the unit enters manual tuning mode. This key is valid only in the TUNER position.
PRESET FUNCTION A/B	Preset mode A/B switching key. Used in combination with 10 digit keys to program or recall a preset channel memory. This key is valid only in the TUNER position.
DIRECT	Direct frequency input mode selection key. To tune into a frequency by inputting its value with the 10 digit keys, first press this key, then input the frequency data using the 10 digit keys. This mode is released when no key has been operated for approx. 5 sec. This key is valid only in the TUNER position.
PRESET SCAN	Preset scanning operation key. Pressing this key scans preset channel memory to the next memory when a preset channel has presently been received, and starts preset channel memory scanning from Channel A-0 when a preset channel is not being received presently. Channel A-9 is followed by B-0 and, after B-1, B-2, ... B-8, B-9 is followed by A-0. This key is valid only in the TUNER position.

## CIRCUIT DESCRIPTION

### Functions of remote control keys

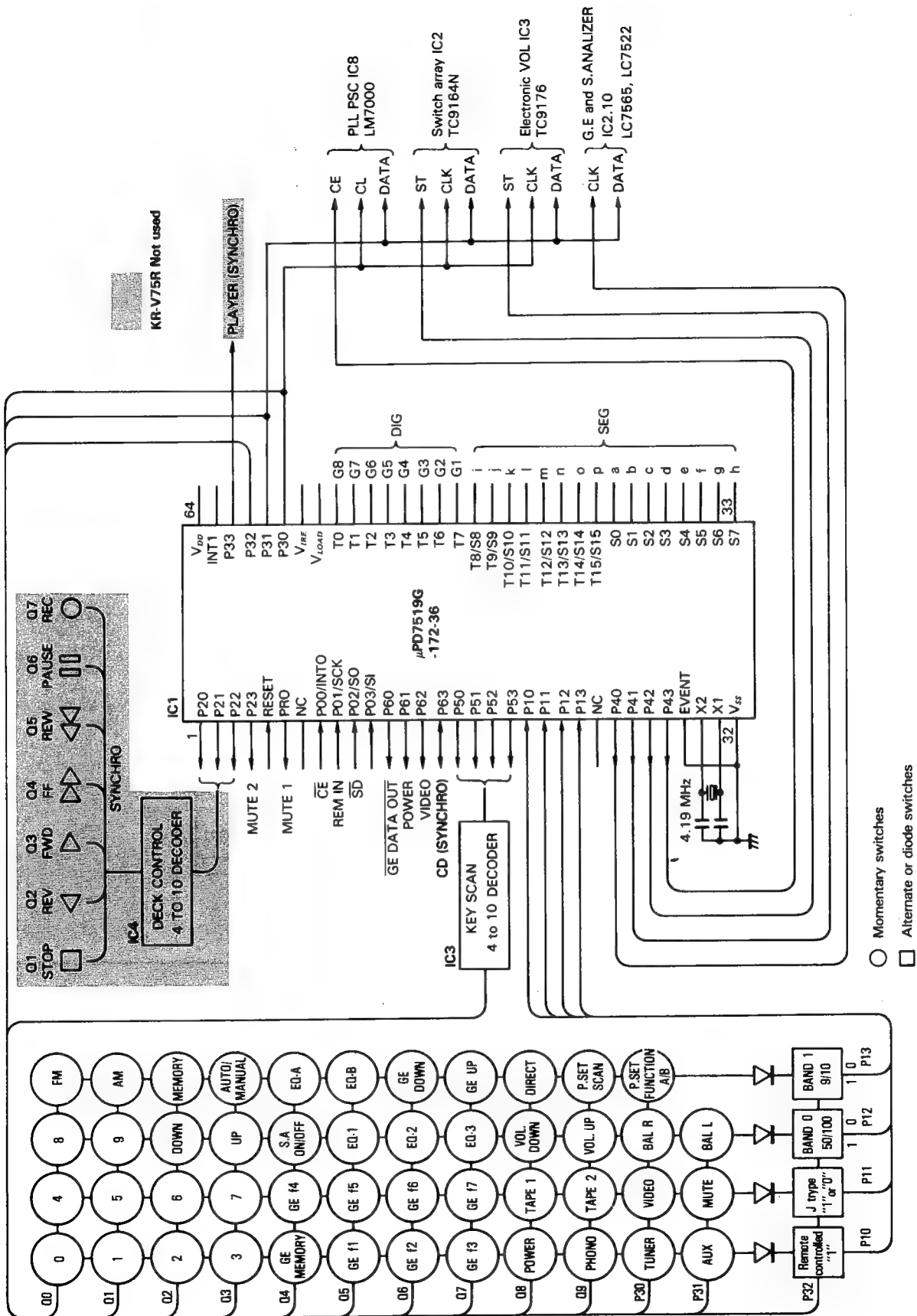
Keys on the remote control unit are arranged as shown below. Almost all keys are found on the key matrix on the main body and have exactly the same functions as the keys

on it. The remote control unit is also provided with operation keys for the tape deck, turntable and CD player connected to the receiver. Their functions are described below.

FM	AM	DIRECT	POWER
0	1	2	3
A/B	4	5	6
P.SCAN	7	8	9
◀◀	▶▶	■ STOP	PLAY/CUT
◀	▶		● REC
◀◀	▶▶	▶ PLAY	/■ PAUSE
CD/AUX	TUNER	PHONO	VOL. UP ▲
TAPE-2	TAPE-1	VIDEO	
EQ-1	EQ-2	EQ-3	▼
EQ-A	EQ-B	MUTE	VOL. DOWN

Symbols	Functions
PLAY/CUT	Turntable control key. Each press of this key reverses the High/Low level at the PLAYER terminal (pin 62). The turntable performs PLAY the operation at the rise and CUT operation at the fall of the pulse.
◀◀, ▶▶ ◀▶,    PAUSE ● REC, ■ STOP	Tape deck control keys. When one of these keys is pressed, the code for signal output is output from the terminal corresponding to the key. Refer to the "Description of terminals" related to pins 1 to 3.
◀◀, ▶▶ ▶ PLAY,   /■ PAUSE	CD player control keys. Communication with the microprocessor of the CD player is performed via the CD terminal (pin 15) by pressing this key. Refer to the description on CD communication processing.

## CIRCUIT DESCRIPTION





## CIRCUIT DESCRIPTION

Description of terminals: IC1 ( $\mu$ PD7519G-172-36) microprocessor

Pin No.	Symbols	I/O	Names	Functions																																													
1 - 3	P20 - P22	0	TAPE DECK CONTROL OUT	<p>Signals for tape deck control from the remote control unit. Tape deck control signals are generated by decoding signals from these three terminals. The IC4 (<math>\mu</math>PD4028BC) decoder is used and the connection between P20 to P22 and the decoder is:</p> <p>P20 - A, P21 - B, P22 - C.</p> <table border="1"> <thead> <tr> <th>P22(C)</th><th>P21(B)</th><th>P22(A)</th><th>Terminal becoming High</th><th>Instruction to deck</th></tr> </thead> <tbody> <tr> <td>0</td><td>0</td><td>0</td><td>None</td><td>None</td></tr> <tr> <td>0</td><td>0</td><td>1</td><td>Q<sub>1</sub></td><td>STOP (■)</td></tr> <tr> <td>0</td><td>1</td><td>0</td><td>Q<sub>2</sub></td><td>PLAY (◀)</td></tr> <tr> <td>0</td><td>1</td><td>1</td><td>Q<sub>3</sub></td><td>PLAY (▶)</td></tr> <tr> <td>1</td><td>0</td><td>0</td><td>Q<sub>4</sub></td><td>FF (▶▶)</td></tr> <tr> <td>1</td><td>0</td><td>1</td><td>Q<sub>5</sub></td><td>REW (◀◀)</td></tr> <tr> <td>1</td><td>1</td><td>0</td><td>Q<sub>6</sub></td><td>PAUSE (  )</td></tr> <tr> <td>1</td><td>1</td><td>1</td><td>Q<sub>7</sub></td><td>REC (●)</td></tr> </tbody> </table> <p>Instructions to the tape deck are sent when the decoder output terminal becomes High for 100 ms.</p>	P22(C)	P21(B)	P22(A)	Terminal becoming High	Instruction to deck	0	0	0	None	None	0	0	1	Q <sub>1</sub>	STOP (■)	0	1	0	Q <sub>2</sub>	PLAY (◀)	0	1	1	Q <sub>3</sub>	PLAY (▶)	1	0	0	Q <sub>4</sub>	FF (▶▶)	1	0	1	Q <sub>5</sub>	REW (◀◀)	1	1	0	Q <sub>6</sub>	PAUSE (  )	1	1	1	Q <sub>7</sub>	REC (●)
P22(C)	P21(B)	P22(A)	Terminal becoming High	Instruction to deck																																													
0	0	0	None	None																																													
0	0	1	Q <sub>1</sub>	STOP (■)																																													
0	1	0	Q <sub>2</sub>	PLAY (◀)																																													
0	1	1	Q <sub>3</sub>	PLAY (▶)																																													
1	0	0	Q <sub>4</sub>	FF (▶▶)																																													
1	0	1	Q <sub>5</sub>	REW (◀◀)																																													
1	1	0	Q <sub>6</sub>	PAUSE (  )																																													
1	1	1	Q <sub>7</sub>	REC (●)																																													
4	P23	0	MUTE2	Muting signal for switching TAPE2 between SOURCE/MONITOR. Normally Low and Active High.																																													
5				Reset input terminal.																																													
6	PPO	0	MUTE1	Muting signal for Input Selector switching and tuner. Normally Low and Active High.																																													
7	NC																																																
8	P00/INT0	I	CE	<p>Backup detection terminal. Timing chart is as shown below.</p> <div style="display: flex; justify-content: space-around;"> <div> <p>When Main Power is ON.</p> </div> <div> <p>When Main Power is OFF.</p> </div> </div>																																													
9	P01/SCK	I	REM IN	<p>Remote control signal input terminal (Active Low) to be connected with the output of <math>\mu</math>PC1474HA.</p> <p>Remote control transmission IC <math>\mu</math>PD6102G is used.</p>																																													
10	P02/SO	I	$\overline{\text{SD}}$	<p>Station detection signal in auto-tuning, etc.</p> <p>High: No station.</p> <p>Low: Station detected.</p>																																													

## CIRCUIT DESCRIPTION

### Description of terminals

Pin No.	Symbols	I/O	Names	Functions
11	P03/SI	I		Non-used input ports. Set either to Low or High level.
12	P60	O	$\overline{\text{GE DATA OUT}}$	Signal for preventing the P31 and P30 (key scan) signals, which are always output, being supplied to LC7522. This becomes Low only when data is written in LC7522 (GE IC).
13	P61	O	POWER	Power remote control output terminal (Active High). High (Power ON) and Low (Power OFF) are alternated each time the REMOTE POWER key is pressed.
14	P62	O	VIDEO	High in the VIDEO position, Low in other positions.
15	P63	I/O	CD	Port used for communication with the microprocessor of the CD player for its remote control.
16 - 19	P50 - P53	O		Output ports for the 4 to 10 decoder IC3 ( $\mu\text{PD4028BC}$ ). Output key strobe signals.
20 - 23	P10 - P13	I		Key matrix return signal input terminals.
24	NC			
25	P40	O		CLK terminal control port used when writing data (with serial input) in the graphic equalizer IC (LC7522) or graphic equalizer/spectrum analyzer display IC (LC7565). Refer to the documents describing LC7522 and LC7565.
26	P41	O		Electronic volume IC (TC9176P) ST terminal control port. Normally High so that the P31 and P30 (key scan) signals, which are always output, are not supplied to TC9176P. Becomes Low only when writing data, after which the terminal level is raised. The ST signal is generated using this rise.
27	P42	O		Switch array IC (TC9167N) control port. Normally High so that the P31 and P30 (key scan) signals, which are always output, are not supplied to TC9164N. Becomes Low only when writing data, after which the terminal level is raised. The ST signal is generated using this rise.
28	P43	O		PLL IC (LM7000) CE terminal control port. Normally Low and High when writing data. Refer to the documents describing LM7000.
29	EVENT	I		Non-used input terminals. Set either to Low or High level.
30, 31	X2, X1			System clock signal oscillation terminal. 4.19 MHz.
32	Vss			GND terminal
33 - 40 41 - 48	S7 - S0 S15 - S8	O	SEG	FL display segment control terminals.
49 - 56	T1 - T	O	DIG	FL display digit control terminals.
57	V <sub>LOAD</sub>			FL display drive power supply (−30 V).
58	V <sub>PRE</sub>			Power supply for the pre-driver of FL display driver.
59	P30	O		<ul style="list-style-type: none"> <li>Key strobe signal terminal</li> <li>CLK terminal for writing data (serial input) in LM7000, TC9164N, TC9176P, LC7522 and LC7565.</li> </ul>

## CIRCUIT DESCRIPTION

### Description of terminals

Pin No.	Symbols	I/O	Names	Functions
60	P31	O		<ul style="list-style-type: none"> <li>Key strobe signal terminal.</li> <li>DATA terminal for writing data (serial input) in LM7000, TC9164N, TC9176P, LC7522 and LC7565.</li> </ul>
61	P32	O		Key strobe signal terminal
62	P33	O		Turntable remote control terminal. PLAY at rise and CUT at fall.
63	INT1	I		Non-used input terminal. Set either to Low or High level.
64	V <sub>DD</sub>			Power supply terminal

### Display tube drive

The display tubes use FIP18AMW24 and are driven by spectrum analyzer/graphic equalizer IC2 LC7565 and this microprocessor.

Refer also to the item describing the display tubes.

- (1) Graphic equalizer/spectrum analyzer display section  
(9G to 15G)

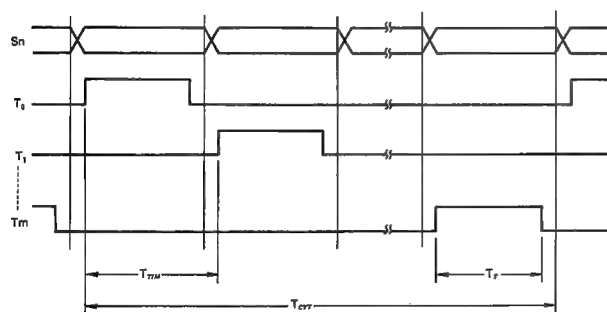
Spectrum analyzer/graphic equalizer IC LC7565 is used.

The duty ratio is 1/11.4 and scanning frequency is determined by connecting a C and R to the IC. The IC drives directly the display which has 8 digits and 13 segments.

- (2) Frequency and other item display section

This section is driven by the display output terminals of this microprocessor  $\mu$ PD7519G.

### Waveforms of FIP display output



$$T_{TM} = \frac{1}{f_{XX}} \times 512 (= 122 \mu\text{s}/4.19 \text{ MHz}) \text{ or } \frac{1}{f_{XX}} \times 1024 (= 244 \mu\text{s}/4.19 \text{ MHz})$$

$T_T$  = Programmable ( $8 \times 2$  variations possible depending on the content of blanking mode register and  $T_{TM}$ )

$$T_{CTT} = T_{TM} \times (m + 1) m = 0 - 15 \text{ (1 to 16 digits)}$$

Display mode register DM = 7: 16 segment mode  
Timing signal Tn, Active High

Timing mode register TM = 7: 8-digit display

Blanking mode register BM = 5:  $\phi$ FIP/2 operation

Timing signal cut width  
4/16

Clock frequency: 4.19 MHz

$$T_{TM} = 244 \mu\text{s}$$

$$T_T = 183 \mu\text{s}$$

$$\text{Blanking frequency} = 61 \mu\text{s}$$

$$T_{CTT} = 1952 \mu\text{s}$$

$$\text{Scanning frequency} = 512 \text{ Hz}$$

$$\text{Duty} = 1/10.67$$

The following values can be read from the conditions above.

Although display tubes are normally driven directly, direct drive of 1G, 2G, 6G, 7G and 8G from the display terminal is not possible because the current is insufficient due to the wide surface of the grids. A driver buffer is added for them.

## ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b> Unless otherwise specified, the individual switches should be set as following: SELECTOR: FM MODE: AUTO							
1	BAND EDGE (1)	—	Connect a DC voltmeter between TPS and TP9.	87.5MHz	(X86-101) L8	2.5V	(a)
2	BAND EDGE (2)	—	Connect a DC voltmeter between TPS and TP9.	108MHz	(X86-101) TC1	8.0V	(a)
Repeat alignments 1 and 2 several times.							
3	RF ALIGNMENT	(A) 98.0MHz 1kHz, ±75kHz dev	(B)	MODE: MONO 98.0MHz	(X86-101) L2,4 (L5)	Maximum amplitude and symmetry of the oscilloscope display.	
4	DISCRIMINATOR (1)	(A) 98.0MHz 1kHz, ±75kHz dev 60dB (ANT input)	Connect a DC voltmeter between TP11 and TP12.	MODE: MONO 98.0MHz	(X14-178) T1	0V	(b)
5	DISCRIMINATOR (2)	(A) 98.0MHz 1kHz, ±75kHz dev 60dB (ANT input)	(B)	MODE: MONO 98.0MHz	(X14-178) T2	Minimum distortion.	
6	VCO	(A) 98.0MHz 0 dev 60dB (ANT input)	Connect a 330kΩ resistor to TP13. Connect a frequency counter to the resistor via an AC voltmeter.	98.0MHz	(X14-178) VR2	76.00kHz	(c)
7	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±68.25kHz dev Selector: L or R Pilot: ±6.75kHz dev 60dB (ANT input)	(B)	98.0MHz	(X86-101) L7	Minimum distortion.	
8	SEPARATION (E type)	(C) 98.0MHz 1kHz, ±40kHz dev Selector: L or R Pilot: 6kHz dev 60dB (ANT input)	(B)	98.0MHz	(X14-178) VR3	Minimum crosstalk.	
<b>AM SECTION</b> Keep the AM loop antenna installed. SELECTOR: AM							
(1)	BAND EDGE (1)	—	Connect a DC voltmeter between TPS and TP9.	530kHz (531kHz)	(X14-178) L4	1.5V	(a)
(2)	BAND EDGE (2)	—	Connect a DC voltmeter between TPS and TP9.	1610kHz (1602kHz)	(X14-178) TC2	8.0V	(a)
Repeat alignments (1) and (2) several times.							
(3)	RF ALIGNMENT (1)	(D) 600kHz 400Hz, 30% mod	(B)	600kHz	(X14-178) L5	Maximum amplitude and symmetry of the oscilloscope display.	
(4)	RF ALIGNMENT (2)	(D) 1400kHz 400Hz, 30% mod	(B)	1400kHz	(X14-178) TC1	Maximum amplitude and symmetry of the oscilloscope display.	
Repeat alignments (3) and (4) several times.							
<b>AUDIO SECTION</b>							
①	IDLE CURRENT	—	Connect a DC voltmeter across CP1 (CP2).	VOLUME: ∞	(X07-230) VR1 (L) VR2 (R)	15mV	(e)
②	SPECTRUM ANALYZER	(E) 1kHz, 8mV	FIP INDICATOR	SELECTOR: CD VOLUME: ∞ EQ: DEFEAT	(X14-178) VR1	1kHz, 0.01W	(f)

REGLAGES

ABGLEICH

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION M F Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SELECTOR: FM MODE: AUTO							
1	BORD DE BANDE (1)	—	Connecter un voltmètre CC entre les TP8 et TP9.	87,5MHz	(X86-101) L8	2,5V	(a)
2	BORD DE BANDE (2)	—	Connecter un voltmètre CC entre les TP8 et TP9.	108MHz	(X86-101) TC1	8,0V	(a)
Répéter les points 1 et 2 plusieurs fois.							
3	ALIGNEMENT HT	(A) 98,0MHz 1kHz, ±75kHz dév	(B)	MODE: MONO 98,0MHz	(X86-101) L2,4 (L5)	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
4	DISCRIMINATEUR (1)	(A) 98,0MHz 1kHz, ±75kHz dév 60dB(Entrée ANT)	Connecter un voltmètre CC entre les TP11 et TP12.	MODE: MONO 98,0MHz	(X14-178) T1	0 V	(b)
5	DISCRIMINATEUR (2)	(A) 98,0MHz 1kHz, ±75kHz dév 60dB(Entrée ANT)	(B)	MODE: MONO 98,0MHz	(X14-178) T2	Distorsion miniale.	
6	VCO	(A) 98,0MHz 0 dév 60dB(Entrée ANT)	Connecter une résistance de 330kΩ à TP13. Raccorder un compteur de fréquence à une résistance par l'intermédiaire d'un voltmètre CA.	(X14-178) VR2	76,00kHz	(c)	
7	DISTORSION (STEREO)	(C) 98,0MHz 1kHz, ±68,25kHz dév Signal pilote: ±6,75kHz dév 60dB(Entrée ANT)	(B)	98,0MHz	(X86-101) L7	Distorsion miniale.	
8	SEPARATION (E type)	(C) 98,0MHz 1kHz, ±40kHz dév Selection: C ou D Signal pilote: ±6kHz dév 60dB(Entrée ANT)	(B)	98,0MHz	(X14-178) VR3	Diaphone miniale.	
SECTION M A Laisser l'antenne bouche M A installée. SELECTOR: AM							
(1)	BORD DE BANDE	—	Connecter un voltmètre CC entre les TP72 et TP73.	530kHz (531kHz)	(X14-178) L4	1,5V	(a)
(2)	BORD DE BANDE	—	Connecter un voltmètre CC entre les TP72 et TP73.	1610kHz (1602kHz)	(X14-178) TC2	8,0V	(a)
Répéter les points (1) et (2) plusieurs fois.							
(3)	ALIGNEMENT HT (1)	(D) 600kHz 400Hz, 30% mod	(B)	600kHz	(X14-178) L5	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(4)	ALIGNEMENT HT (2)	(D) 1400kHz 400Hz, 30% mod	(B)	1400kHz	(X14-178) TC1	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
SECTION AUDIO Répéter les points (3) et (4) plusieurs fois.							
①	REGLAGE DU COURANT DE POLARISATION	—	Connecter un voltmètre CC sur CP1 (CP2).	VOLUME: -∞	(X07-230) VR1 (C) VR2 (D)	18mV	(e)
②	SPECTRUM ANALYZER	(E) 1kHz, 8mV	INDICATEUR FIP	SELECTOR: CD VOLUME: -∞ EQ: DEFEAT	(X14-178) VR1	1kHz, 0,01W	(f)

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGEGLEICHEN FÜR	ABB.
U K W - E M P F A N G S A B T E I L U N G Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SELECTOR: FM MODE: AUTO							
1	BANDKANTE (1)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	87,5MHz	(X86-101) L8	2,5V	(a)
2	BANDKANTE (2)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	108MHz	(X86-101) TC1	8,0V	(a)
Abstimmen 1 und 2 mehrere Male wiederholen.							
3	EMPFANGS-BEREICH-ABSTIMMUNGEN	(A) 98,0MHz 1kHz, ±75kHz Hub	(B)	MODE: MONO 98,0MHz	(X86-101) L2,4 (L5)	Maximal Amplitude und Symetrie des Oszilloskopbildes.	
4	DISCRIMINATOR (1)	(A) 98,0MHz 1kHz, ±75kHz Hub 60dB(ANT-Eingang)	Einen Gleichspannungsmesser zwischen TP11 und TP12 anschließen.	MODE: MONO 98,0MHz	(X14-178) T1	0 V	(b)
5	DISCRIMINATOR (2)	(A) 98,0MHz 1kHz, ±75kHz Hub 60dB(ANT-Eingang)	(B)	MODE: MONO 98,0MHz	(X14-178) T2	Minimaler Klirrfaktor.	
6	SPANNUNGS-GEREGELTER OZILLATOR	(A) 98,0MHz 0 Hub 60dB(ANT-Eingang)	Einen 330kΩ Widerstand zu TP13 anschließen. Einen Frequenzzähler über einen Wechselspannungsmesser an den Widerstand anschließen.	98,0MHz	(X14-178) VR2	76,00kHz	(c)
7	KLIRRFAKTOR (STEREO)	(C) 98,0MHz 1kHz, ±68,25kHz Hub Wähler: L oder R Piloten: ±6,75kHz Hub 60dB(ANT-Eingang)	(B)	98,0MHz	(X86-101) L7	Minimaler Klirrfaktor.	
8	STEREO KANAL TRENNUNG (E type)	(C) 98,0MHz 1kHz, ±40kHz Hub Wähler: L oder R Piloten: ±6kHz Hub 60dB(ANT-Eingang)	(B)	98,0MHz	(X14-178) VR3	Minimales Übersprechen.	
M W - E M P F A N G S A B T E I L U N G Die MW-Rahmenantenne angebracht lassen. SELECTOR: AM							
(1)	BANDKANTE (1)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	530kHz (531kHz)	(X14-178) L4	1,5V	(a)
(2)	BANDKANTE (2)	—	Einen Gleichspannungsmesser zwischen TP72 und TP73 anschließen.	1610kHz (1602kHz)	(X14-178) TC2	8,0V	(a)
Abstimmen (1) und (2) mehrere Male wiederholen.							
(3)	HF-ABGLEICH (1)	(D) 600kHz 400Hz, 30% mod	(B)	600kHz	(X14-178) L5	Maximal Amplitude und Symetrie des Oszilloskopbildes.	
(4)	HF-ABGLEICH (2)	(D) 1400kHz 400Hz, 30% mod	(B)	1400kHz	(X14-178) TC1	Maximal Amplitude und Symetrie des Oszilloskopbildes.	
Abstimmen (3) und (4) mehrere Male wiederholen.							
AUDIO - E M P F A N G S A B T E I L U N G							
①	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CP1 (CP2) anschließen.	VOLUME: -∞	(X07-230) VR1 (L) VR2 (R)	18mV	(e)
②	SPECTRUM ANALYZER	(E) 1kHz, 8mV	FIP INDIKATOR	SELECTOR: CD VOLUME: -∞ EQ: DEFEAT	(X14-178) VR1	1kHz, 0,01W	(f)

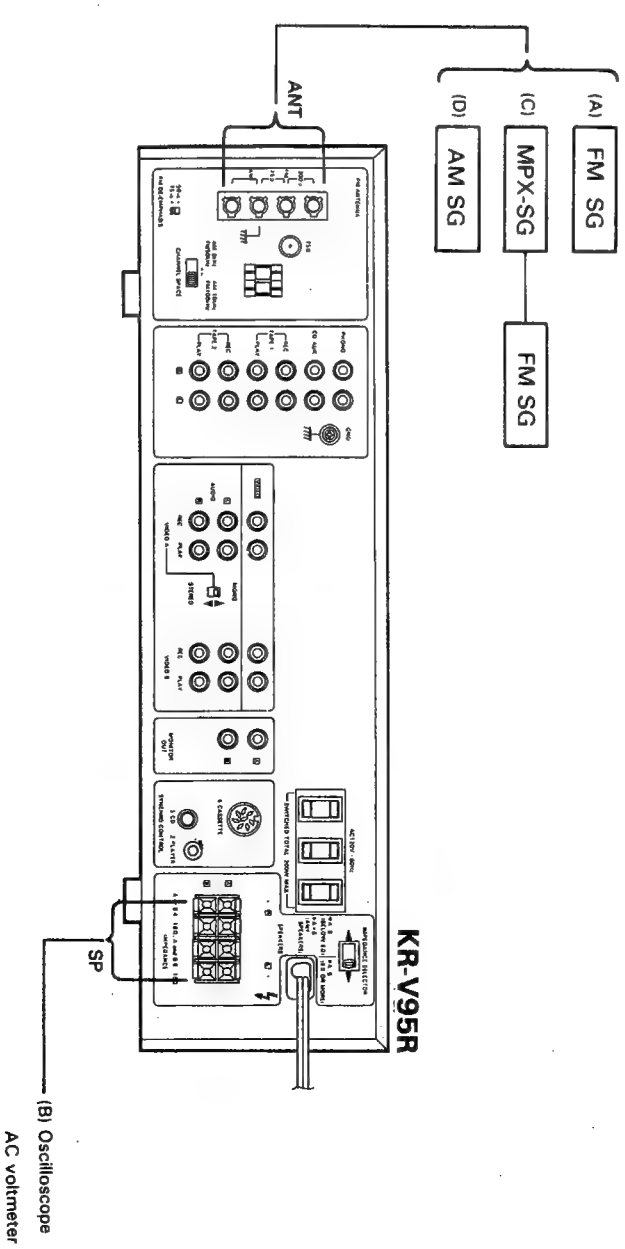
TES  
Oscil  
AM s  
FM si  
SDK  
Audic  
AC v  
FM r  
Freq  
DC v  
Disto  
Dum

**ABGLEICH**

# ADJUSTMENT/REGLAGES/ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG							
SELECTOR: FM MODE: AUTO							
1	BANDKANTE (1)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	87,5MHz	(X86-101) L8	2,5V	(a)
2	BANDKANTE (2)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	108MHz	(X86-101) TC1	8,0V	(a)
Abstimnungen 1 und 2 mehrere Male wiederholen.							
3	EMPFANGSBEREICH-ABSTIMMUNGEN	(A) 98,0MHz Hub 1kHz, ±75kHz Hub	(B)	MODE: MONO 98,0MHz	(X86-101) L2,4 (L5)	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
4	DISKRIMINATOR (1)	98,0MHz 1kHz, ±75kHz Hub 60dB (ANT-Eingang)	Einen Gleichspannungsmesser zwischen TP11 und TP12 anschließen.	MODE: MONO 98,0MHz	(X14-178) T1	0 V	(b)
5	DISKRIMINATOR (2)	98,0MHz 1kHz, ±75kHz Hub 60dB (ANT-Eingang)	(B)	MODE: MONO 98,0MHz	(X14-178) T2	Minimaler Klirrfaktor.	
6	SPANNUNGS-GEREGELTER OZILLATOR	(A) 98,0MHz 0 Hub 60dB (ANT-Eingang)	Einen 330kΩ Widerstand zu TP13 anschließen. Einen Frequenzzähler über einen Wechselspannungsmesser an den Widerstand anschließen.	98,0MHz	(X14-178) VR2	76,00kHz	(c)
7	KLIRRFAKTOR (STEREO)	(C) 98,0MHz 1kHz, ±68,25kHz Hub Mähler: L oder R Piloten: ±6,75kHz Hub 60dB (ANT-Eingang)	(B)	98,0MHz	(X86-101) L7	Minimaler Klirrfaktor.	
8	STEREO KANAL TRENNUNG (E type)	98,0MHz 1kHz, ±40kHz Hub Mähler: L oder R Piloten: ±6kHz Hub 60dB (ANT-Eingang)	(B)	98,0MHz	(X14-178) VR3	Minimaler Übersprechen.	
MW-EMPFANGSABTEILUNG							
Die MW-Rahmenantenne angebracht lassen. SELECTOR: AM							
(1)	BANDKANTE (1)	—	Einen Gleichspannungsmesser zwischen TP8 und TP9 anschließen.	530kHz (531kHz)	(X14-178) L4	1,5V	(a)
(2)	BANDKANTE (2)	—	Einen Gleichspannungsmesser zwischen TP72 und TP73 anschließen.	1610kHz (1602kHz)	(X14-178) TC2	8,0V	(a)
Abstimnungen (1) und (2) mehrere Male wiederholen.							
(3)	HF-ABGLEICH (1)	(D) 600kHz 400Hz, 30% mod	(B)	600kHz	(X14-178) L5	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(4)	HF-ABGLEICH (2)	(D) 1400kHz 400Hz, 30% mod	(B)	1400kHz	(X14-178) TC1	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
Abstimnungen (3) und (4) mehrere Male wiederholen.							
AUDIO-EMPFANGSABTEILUNG							
①	LEERLAUFSTROM	—	Einen Gleichspannungsmesser über CP1 (CP2) anschließen.	VOLUME: -∞	(X07-230) VR1 (L) VR2 (R)	18mV	(e)
②	SPECTRUM ANALYZER	(E) 1kHz, 8mV	FIP INDUKTOR	SELECTOR: CD VOLUME: -∞ EQ: DEFEAT	(X14-178) VR1	1kHz, 0,01W	(f)

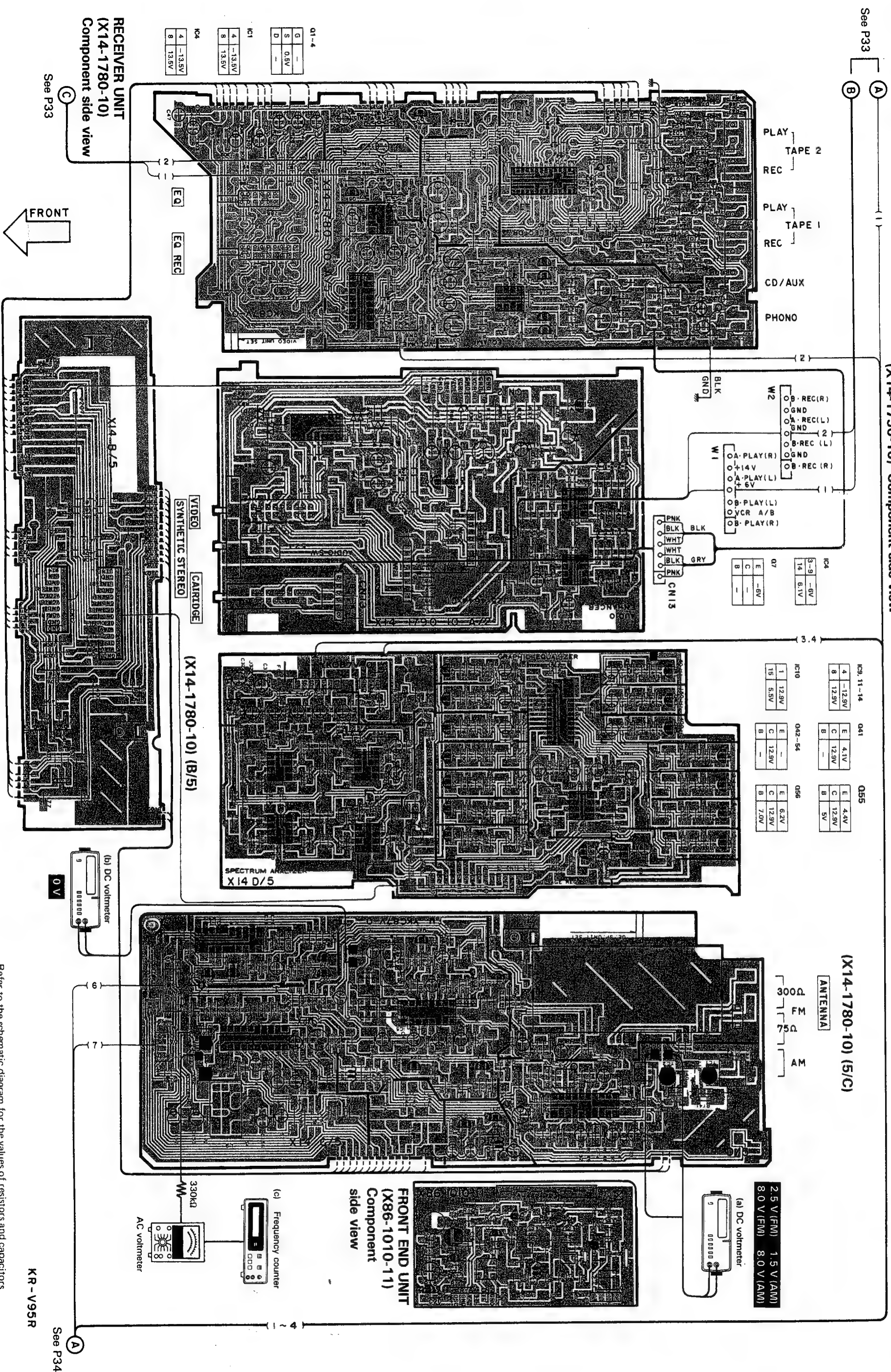
TEST INSTRUMENT		APPAREILLAGE		PRÜFINSTRUMENTE	
Oscilloscope .....	Oscilloscope .....	Oszilloskop .....	SCOPE		
AM signal generator.....	Générateur MA .....	MW-Signalgenerator .....	AM-SG		
FM signal generator .....	Générateur MF .....	UKW-Signalgenerator .....	FM-SG		
SDK signal generator .....	Générateur SDK .....	SDK-Signalgenerator .....	SDK-SG		
Audio generator .....	Générateur audio fréquences .....	NF-Signalgenerator .....	AG		
AC voltmeter .....	Voltmètre CA .....	Wechselspannungsmesser .....			
FM multiplex generator .....	Générateur multiplex stéréo .....	UKW-Multiplexgenerator .....	FM-MPX		
Frequency counter .....	Fréquencemètre .....	Frequenzzähler .....			
DC voltmeter .....	Voltmètre CC .....	Gleichspannungsmesser .....			
Distortion meter .....	Distorsionmètre .....	Klirrfaktormesser .....			
Dummy antenna .....	Antenne fictive .....	Antennennachbildung .....			

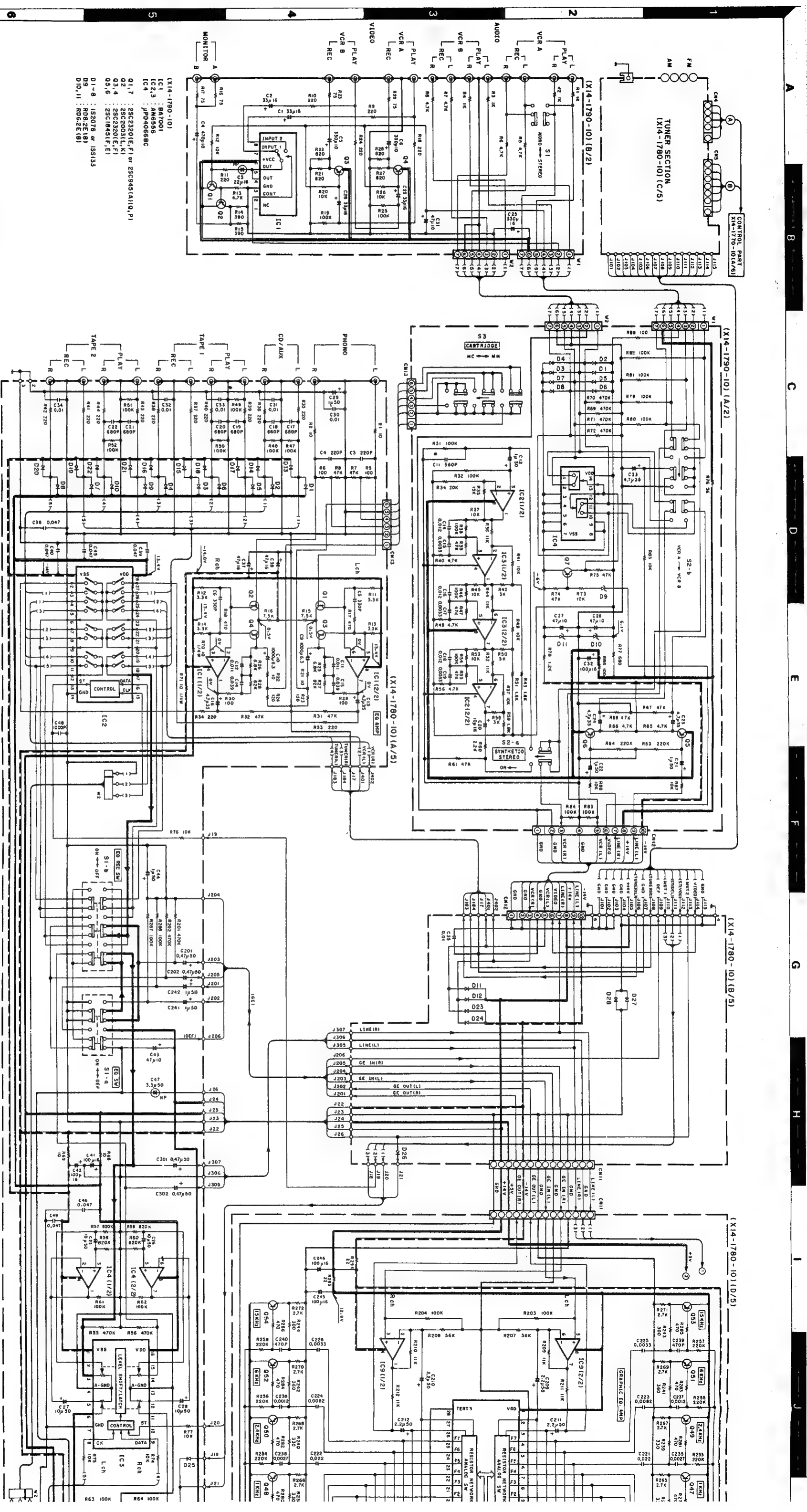




## PC BOARD

**VIDEO CONTROL UNIT**  
**(X14-1790-10) Component side view**





25A733 (A) 25C933S 25C1740S 25K163  $\mu$ PD4066BC AN6556 AN6556F

25A999 25C1845 25C2003 25C945 (A) 25C2320

BA7001 15 TC9164N LCT7522 TC9176P

28 14 8 22 18 8 4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

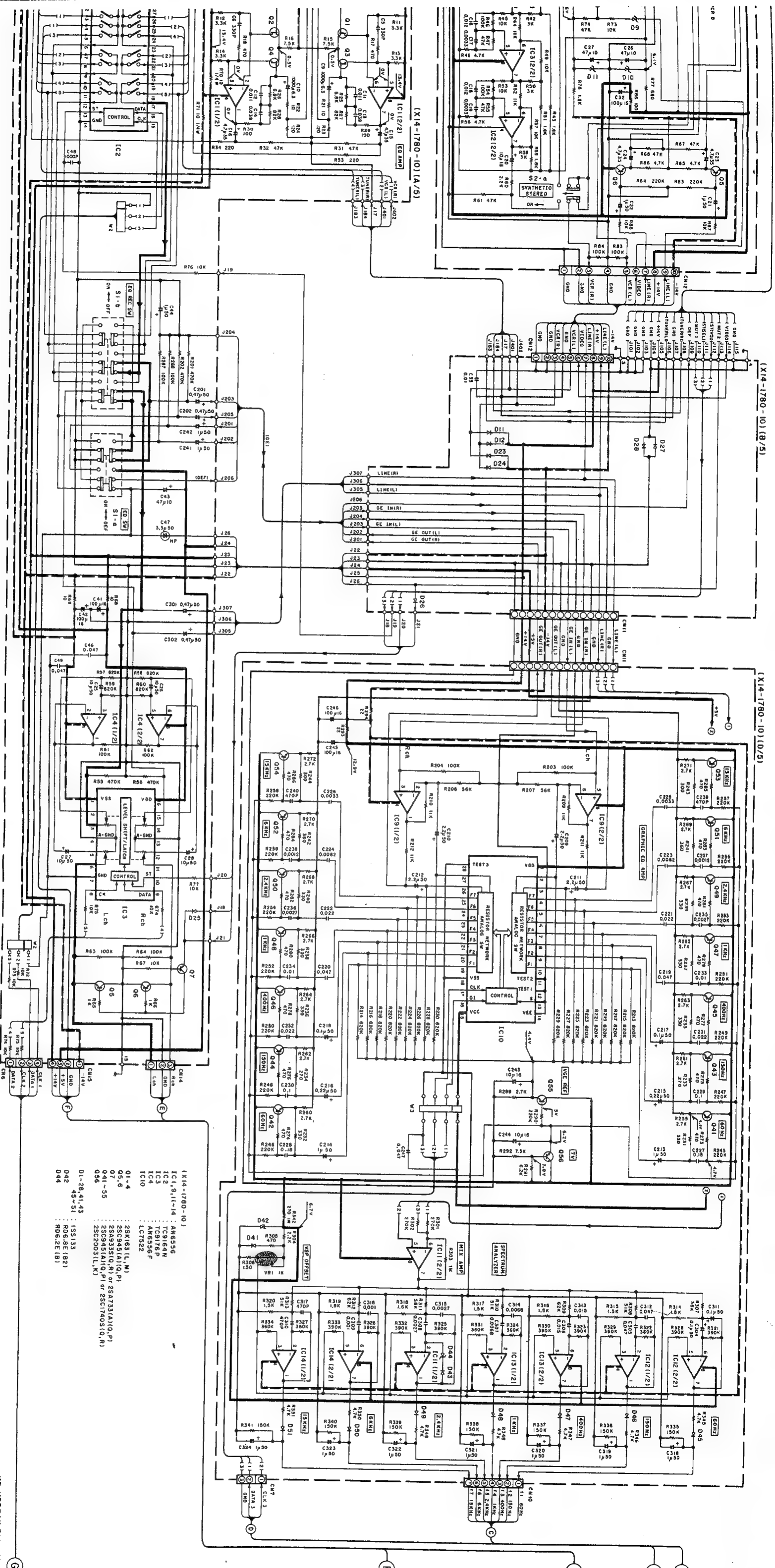
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

**CAUTION:** For continued safety, components only with manufacturer's parts list. Indicates safe reduce the risk of electric shock. Measurements shall be carried out by insulated from the supply circuit returned to the customer.





DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

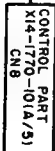
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). **⚠** Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- (X14-1780-10)
- IC1,9,11-14 : AN555
  - IC2 : TC916N
  - IC3 : AN6506F
  - IC10 : LC7922
  - Q1-4 : 28K163(L,M)
  - Q5,6 : 28C945(A10,P)
  - Q7 : 28A933(S10,R) or 28A733(A10,P)
  - Q41-55 : 28C945(A10,P) or 28C17605(I,R)
  - Q56 : 28C2003(L,K)
  - D1-28,41,43 : TS133
  - D42 : 45-51
  - D44 : R06,8E (82)
  - R06,2E (81)

KR-V95R (K, P11/1/4)

KR-V95R





KR-V95R(K,P)(2/4)

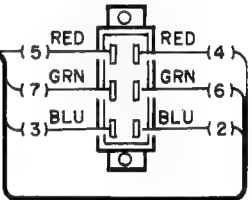
KR-V95R



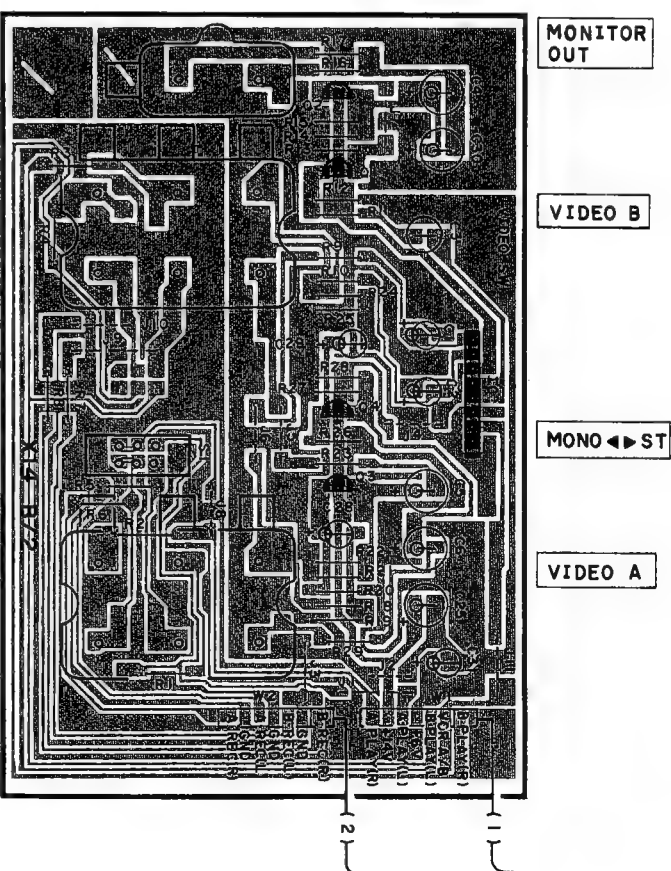
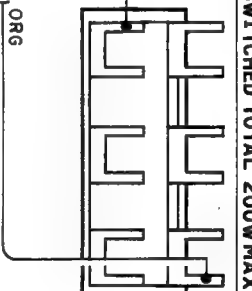


## PC BOARD

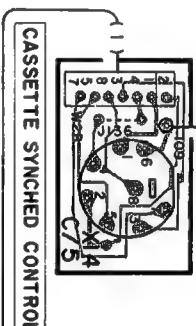
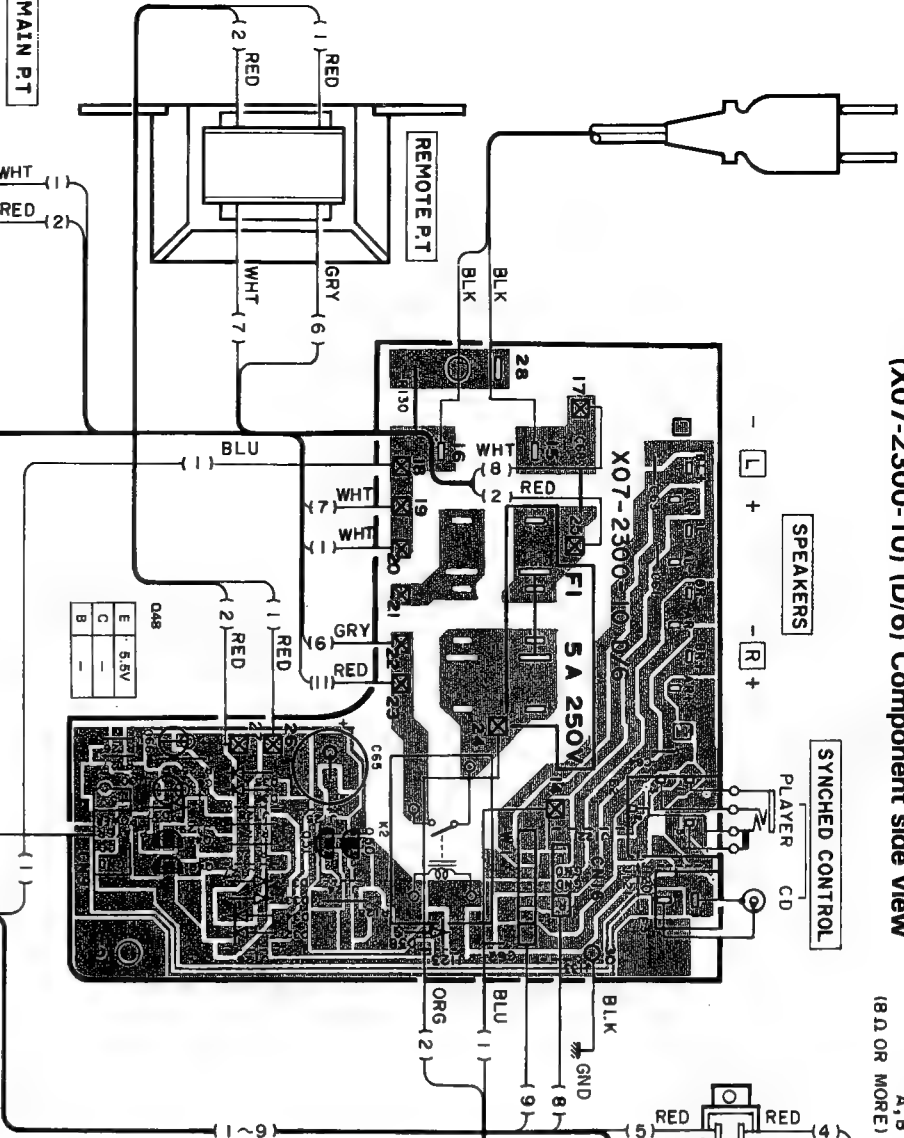
A, B (BELOW 8Ω)  $\triangleright$  A+B (ANY SPEAKER OR MORE)  $\triangleright$  A, B (8Ω OR MORE)



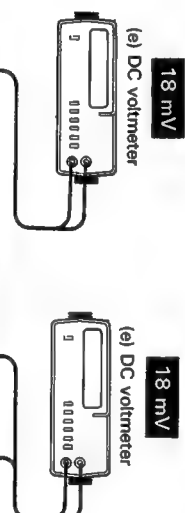
**SWITCHED TOTAL 200W MAX**



ⓑ See P30



**(X14) (C/5)**

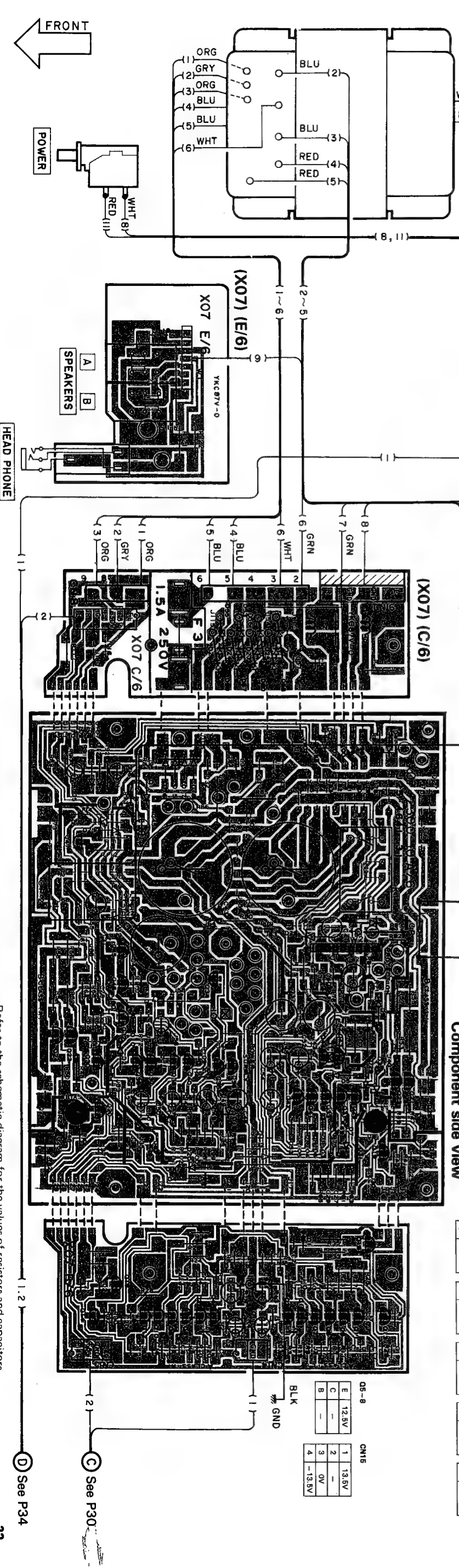


(X14) (B/2)

<b>IC1</b>	<b>Q23, 24, 27, 28</b>	<b>Q37</b>	<b>Q45, 46</b>	<b>Q43, 44</b>	<b>Q35</b>
4 2.5V	E —	E 5.5V	E —	E —	E —
6 0.8V	C -70V	C 13.5V	C -18V	C -13.5V	C 20V
7 2.0V	B —	B —	B —	B —	B —
8 3.2V					

### Component side view

023, 24, 27, 28	037	045, 46	043, 44	035																														
<table><tr><td>E</td><td>—</td></tr><tr><td>C</td><td>-70V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	—	C	-70V	B	—	<table><tr><td>E</td><td>5, 6V</td></tr><tr><td>C</td><td>13, 5V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	5, 6V	C	13, 5V	B	—	<table><tr><td>E</td><td>—</td></tr><tr><td>C</td><td>-19V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	—	C	-19V	B	—	<table><tr><td>E</td><td>—</td></tr><tr><td>C</td><td>-13, 5V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	—	C	-13, 5V	B	—	<table><tr><td>E</td><td>—</td></tr><tr><td>C</td><td>20V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	—	C	20V	B	—
E	—																																	
C	-70V																																	
B	—																																	
E	5, 6V																																	
C	13, 5V																																	
B	—																																	
E	—																																	
C	-19V																																	
B	—																																	
E	—																																	
C	-13, 5V																																	
B	—																																	
E	—																																	
C	20V																																	
B	—																																	
021, 22, 25, 26	038	047	034	036																														
<table><tr><td>E</td><td>—</td></tr><tr><td>C</td><td>70V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	—	C	70V	B	—	<table><tr><td>E</td><td>5, 6V</td></tr><tr><td>C</td><td>—</td></tr><tr><td>B</td><td>—</td></tr></table>	E	5, 6V	C	—	B	—	<table><tr><td>E</td><td>-26V</td></tr><tr><td>C</td><td>—</td></tr><tr><td>B</td><td>—</td></tr></table>	E	-26V	C	—	B	—	<table><tr><td>E</td><td>13, 5V</td></tr><tr><td>C</td><td>20V</td></tr><tr><td>B</td><td>—</td></tr></table>	E	13, 5V	C	20V	B	—	<table><tr><td>E</td><td>12, 9V</td></tr><tr><td>C</td><td>—</td></tr><tr><td>B</td><td>13, 5</td></tr></table>	E	12, 9V	C	—	B	13, 5
E	—																																	
C	70V																																	
B	—																																	
E	5, 6V																																	
C	—																																	
B	—																																	
E	-26V																																	
C	—																																	
B	—																																	
E	13, 5V																																	
C	20V																																	
B	—																																	
E	12, 9V																																	
C	—																																	
B	13, 5																																	



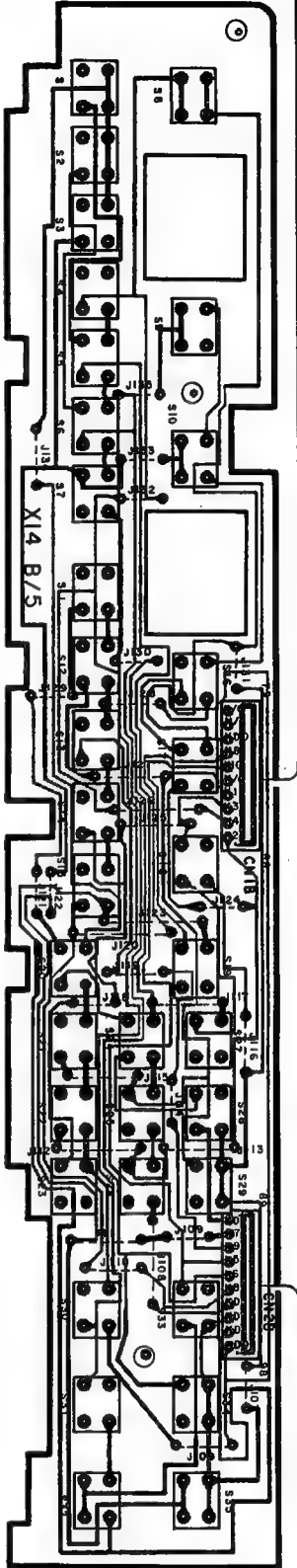
① See P34

See P30

# KR-V95R KR-V95R

## PC BOARD

FRONT PANNEL



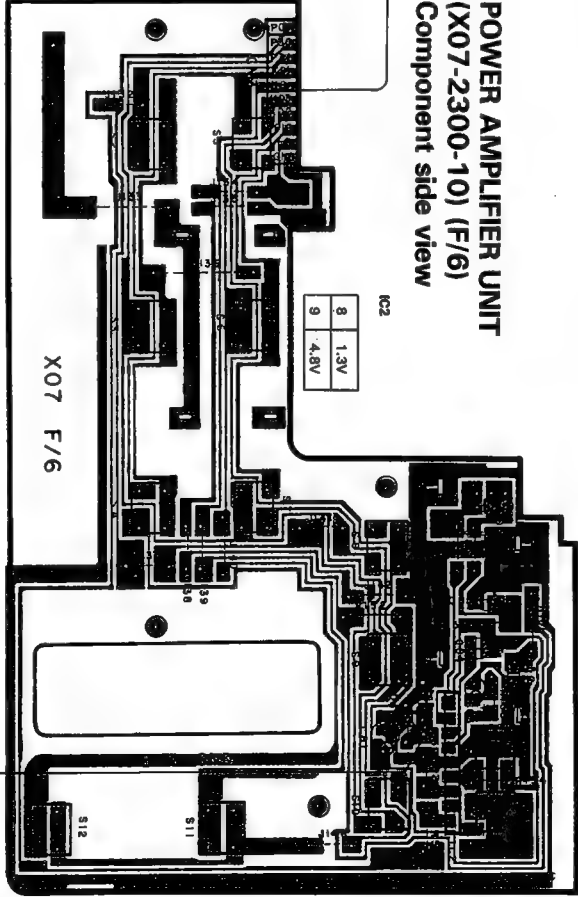
DISPLAY UNIT  
(X14-1770-10) (B/5) Component side view

BOTTOM  
SIDE

IC1	IC2	CN8	05-9	04
57 -28V	42 5V	55 -28V	E -	E -28V
58 -4.5V	CN9	54 5.5V	C 5V	C -
64 5V			B -	B -
	67 5.5			

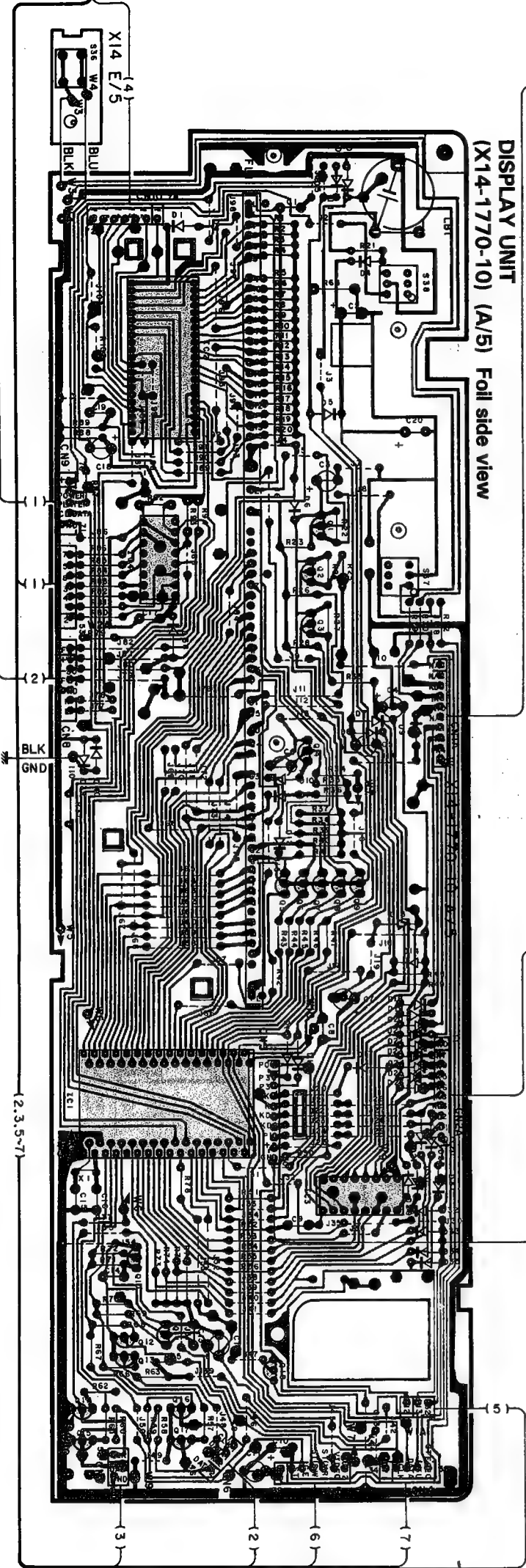
DISPLAY UNIT  
(X14-1770-10) (A/5) Foil side view

POWER AMPLIFIER UNIT  
(X07-2300-10) (F/6)  
Component side view



IC2
8 1.3V
9 -4.8V

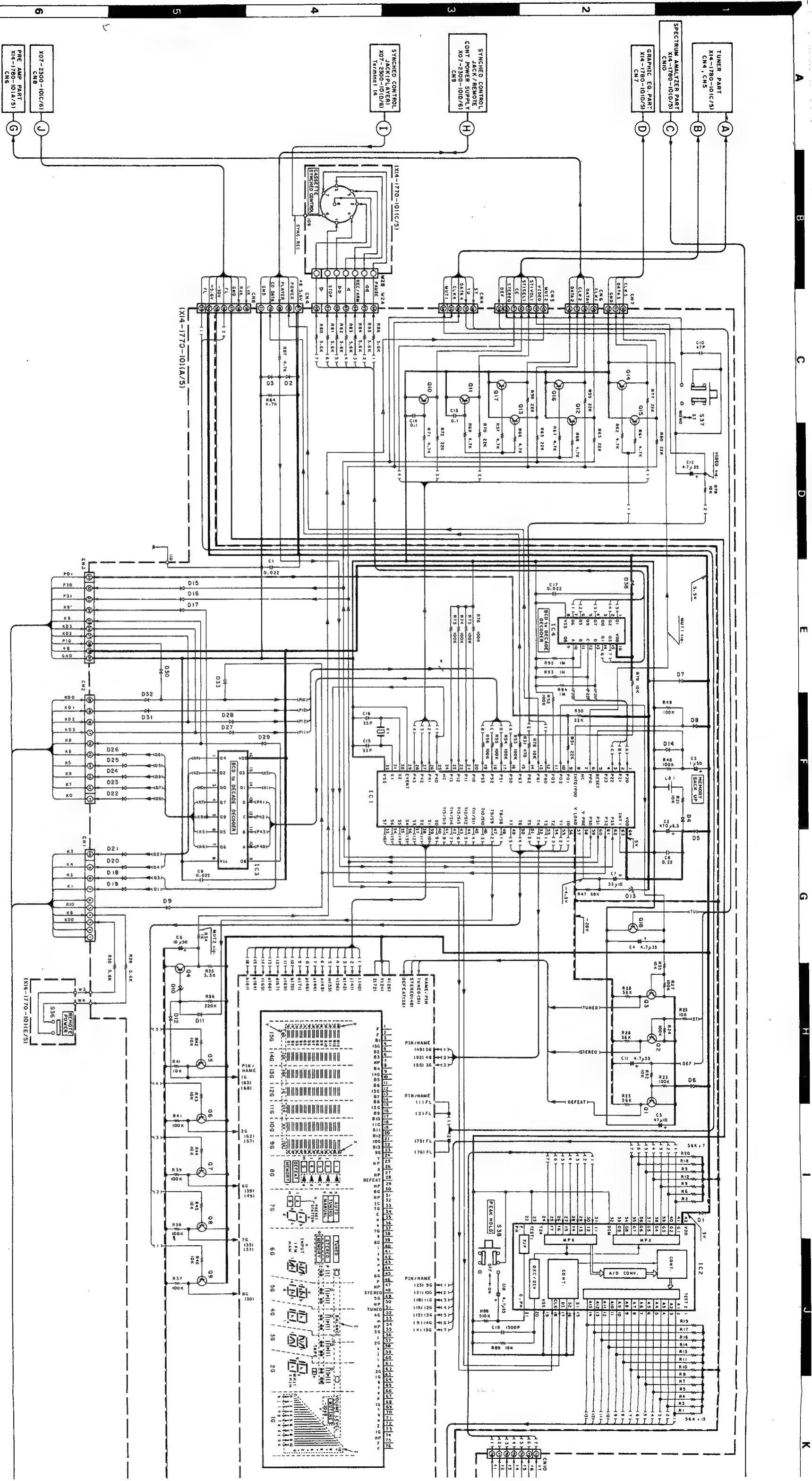
X07 F/6



See P30 (A)

See P33 (D)

Refer to the schematic diagram for the values of resistors and capacitors.



2SA733 (A)  
2SC1845  
2SC945

2SA933S  
2SC1740S

μPD0428BC

μPC1474HA

LC7565

MB84028BM

μPD519G-172-36

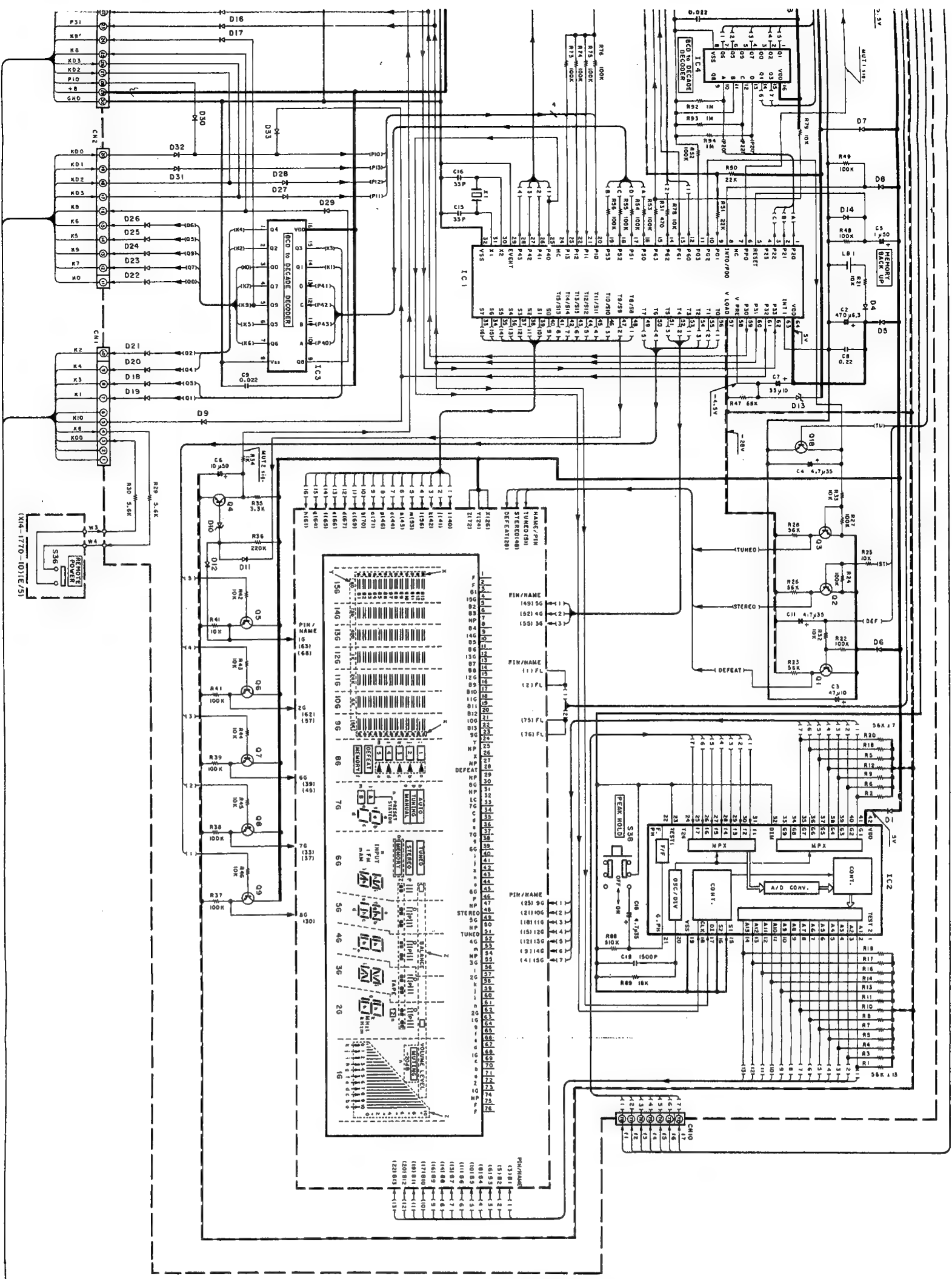
33  
42  
19

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

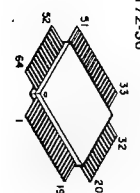
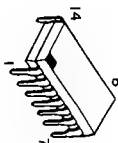
Die angegebenen Gleichspannungswerte v einem hochohmigen Spannungsmesser. Dabei schwanken die Meßwerte aufgrund schiedenen zwischen einzelnen Instrfme Geräten u.U. geringfügig.





MB840288M

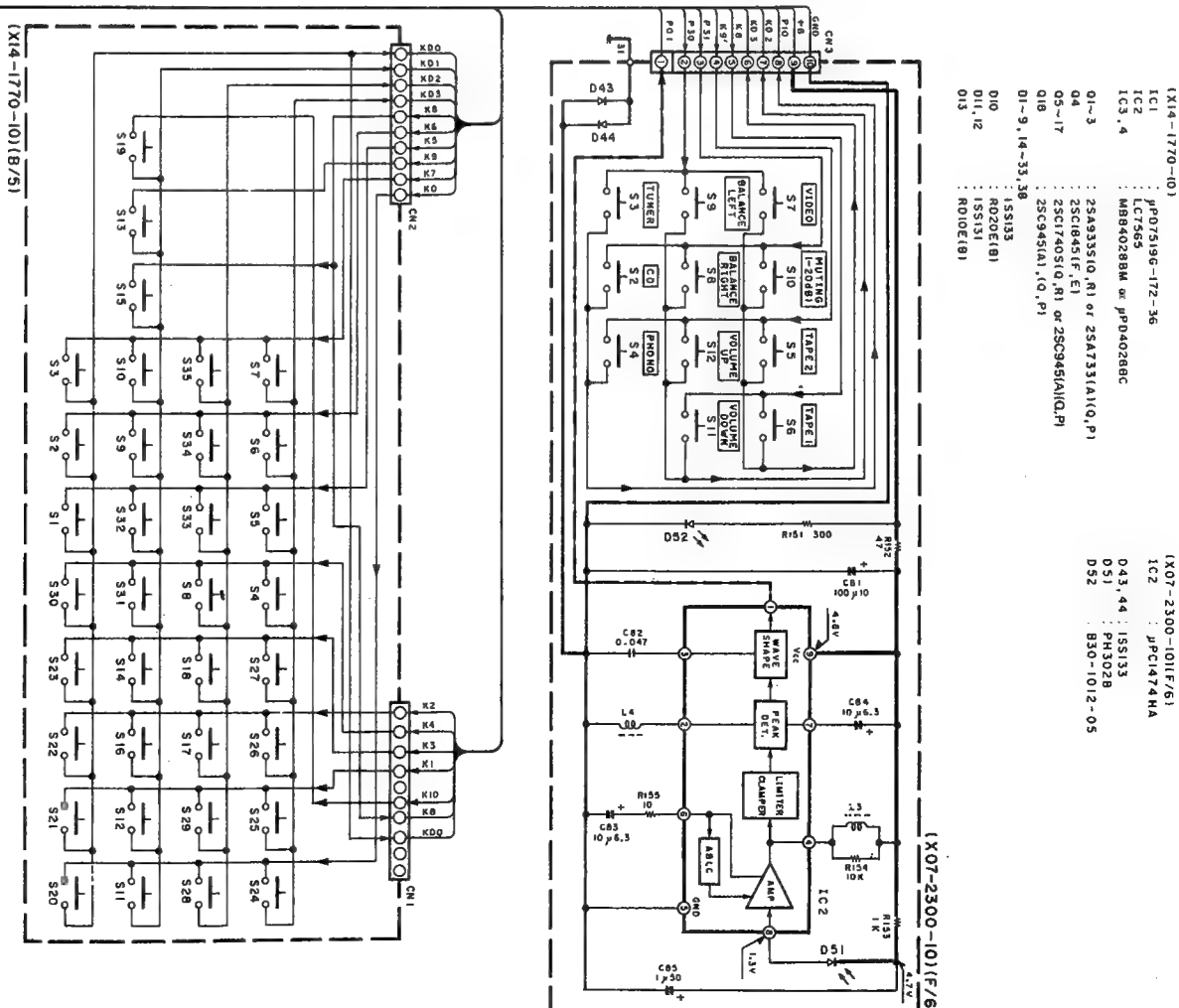
μPD7519G-172-36



DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.



KR-V95R(K,P13/4)

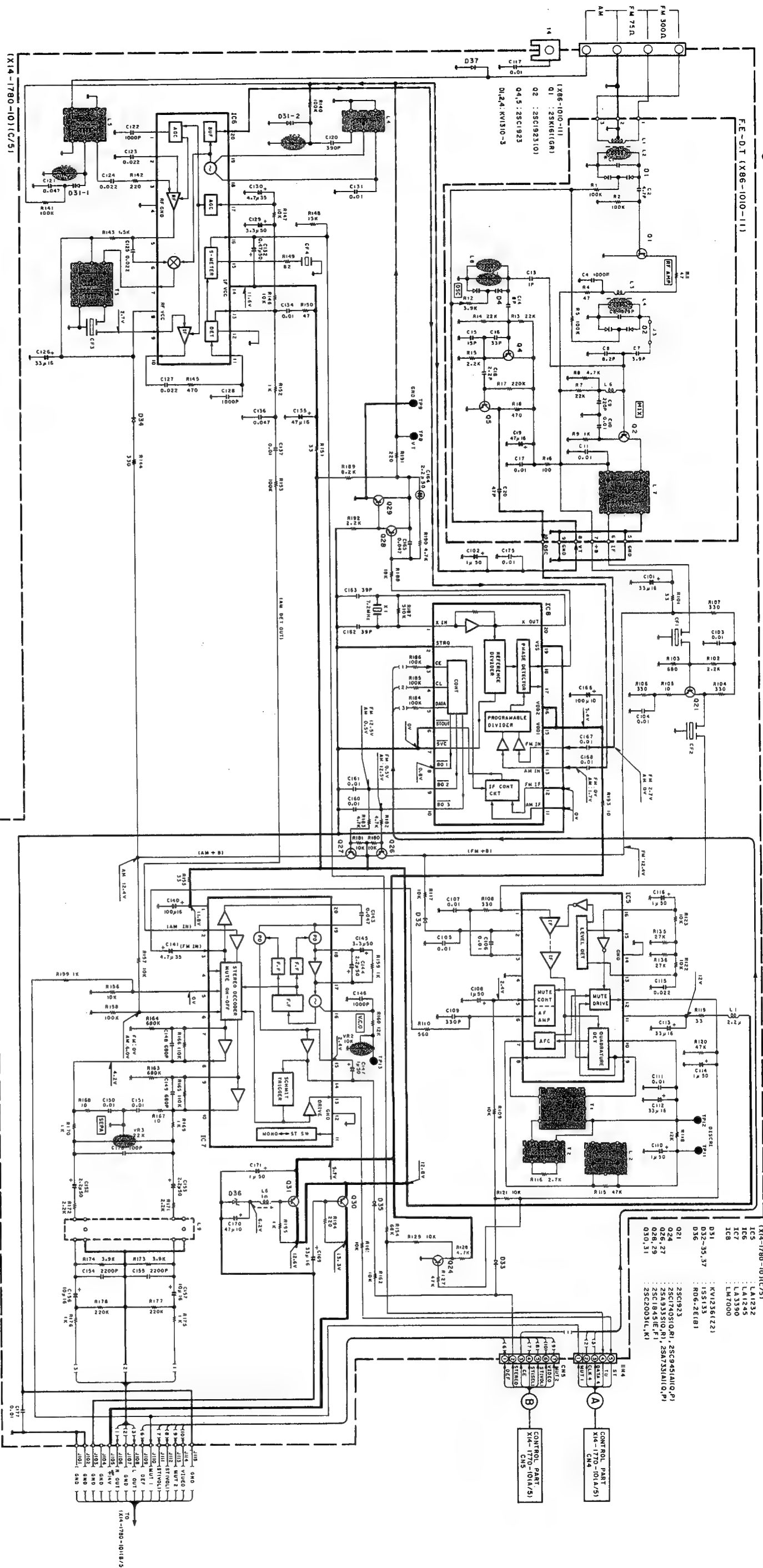
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

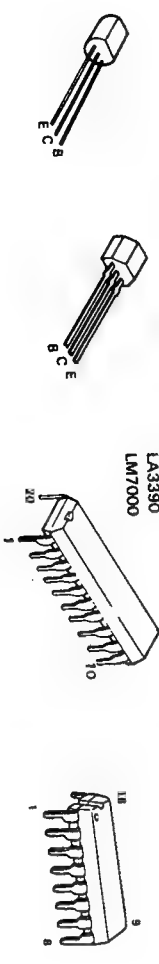
KR-V95R

KENWOOD





- 2SC1845
- 2SC1923
- 2SC2003
- 2SC945 (A)
- 2SA733 (A)
- 2SC1740S
- LA1245
- LA3390
- LM7000
- LA1232




2SA933



DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un volt-mètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  Indicates safety critical components. To reduce the risk of electric shock, leakage current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KR-V95R  
KENWOOD

KR-V95R

PC BOARD

RECEIVER UNIT  
(X14-1780-10) Component side view (D/5)



IC6

9	2.7V
14	11.6V

IC8

9	FM12.5V
10	AM0.5V
11	AM12.5V
12	0V
13	FM0V
15	AM1.7V
16	5.4V

IC5

5	2.4V
11	12V

Q26

E	12.8V
C	FM12.4V
B	—

Q27

E	12.8V
C	AM12.4V
B	—

IC7

1	11.8V
5	0V
6	FM0V
B	AM6.0V
15	2.4V

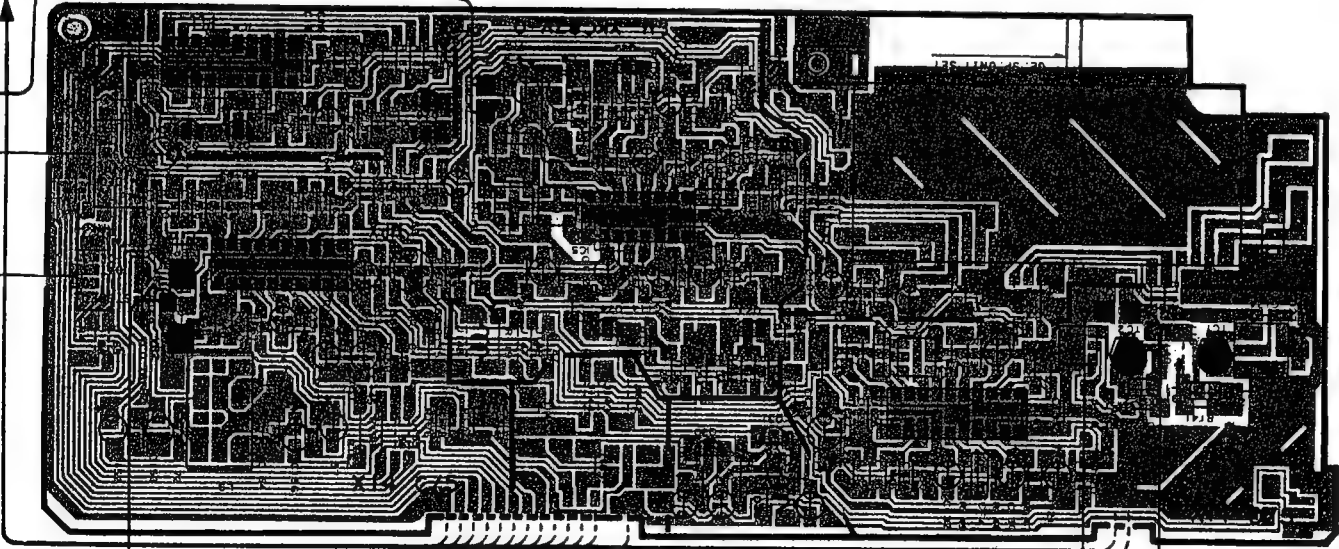
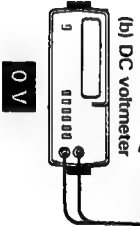
Q30

E	12.8V
C	13.3V
B	—

Q31

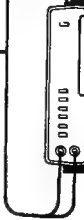
E	5.7V
C	12.8V
B	6.2

(X14-1780-10) (B/5)



2.5 V (FM) 1.5 V (AM)  
8.0 V (FM) 8.0 V (AM)

(a) DC voltmeter

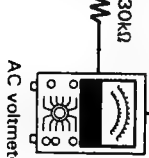


FRONT END UNIT  
(X86-1010-11)  
Component  
side-view

(c) Frequency counter

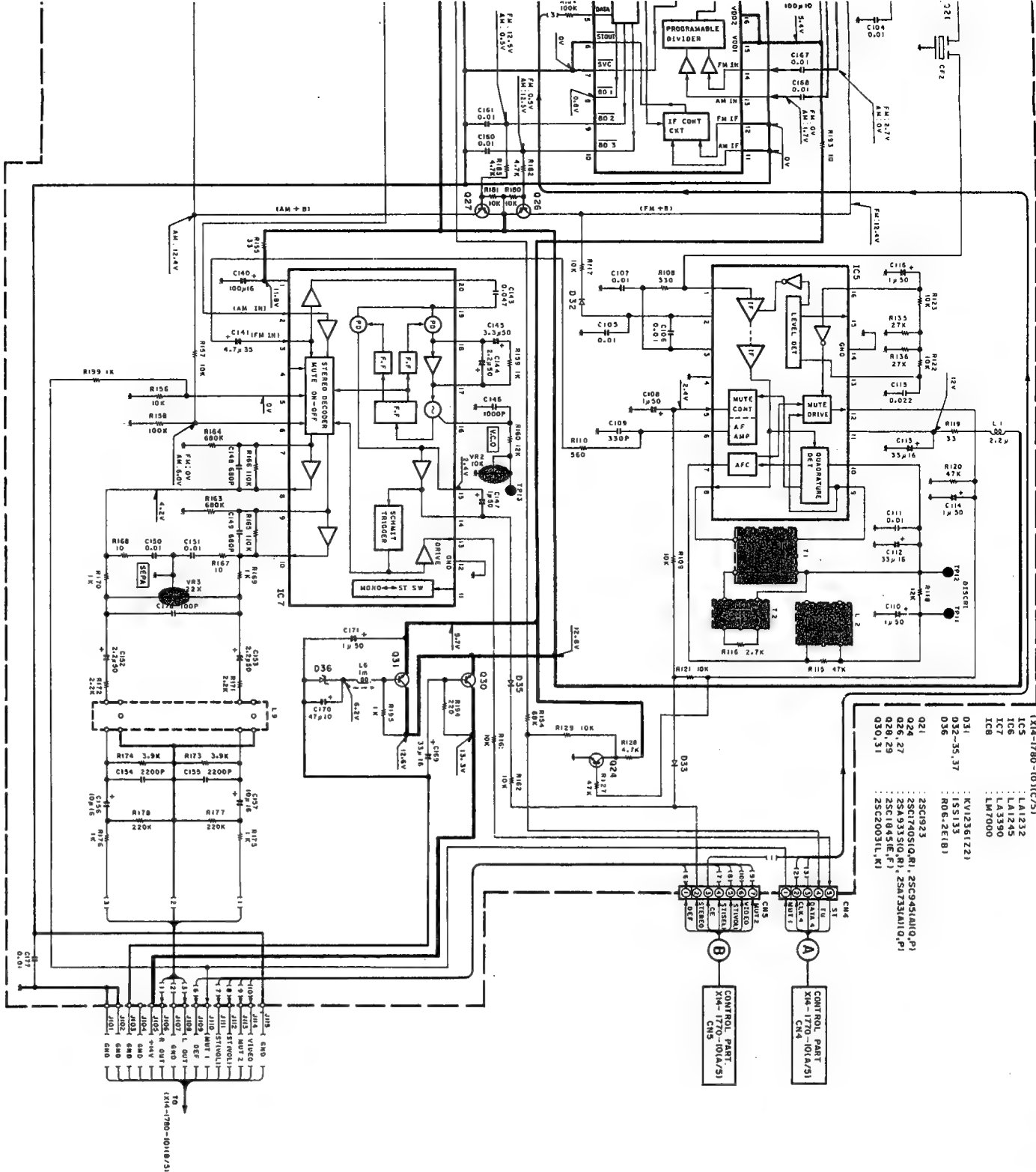


AC voltmeter



KR-V95R

KR-V95R (K,P)(4/4)



(X14-1780-10)(C/5)

IC5	LA1232
IC6	LA1245
IC7	LA3390
IC8	LM7000
Q31	KU1235(122)
Q35	RS1
Q36	RS1
Q21	2SC1923
Q24	2SC1740S1Q,R, 2SC9451A1Q,P
Q26, 27	2SA333S1Q,R, 2SA7331A1Q,P
Q28, 29	2SC10451E,F
Q30, 31	2SC20031L,K

**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Bei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder älteren u.U. geringfügig.

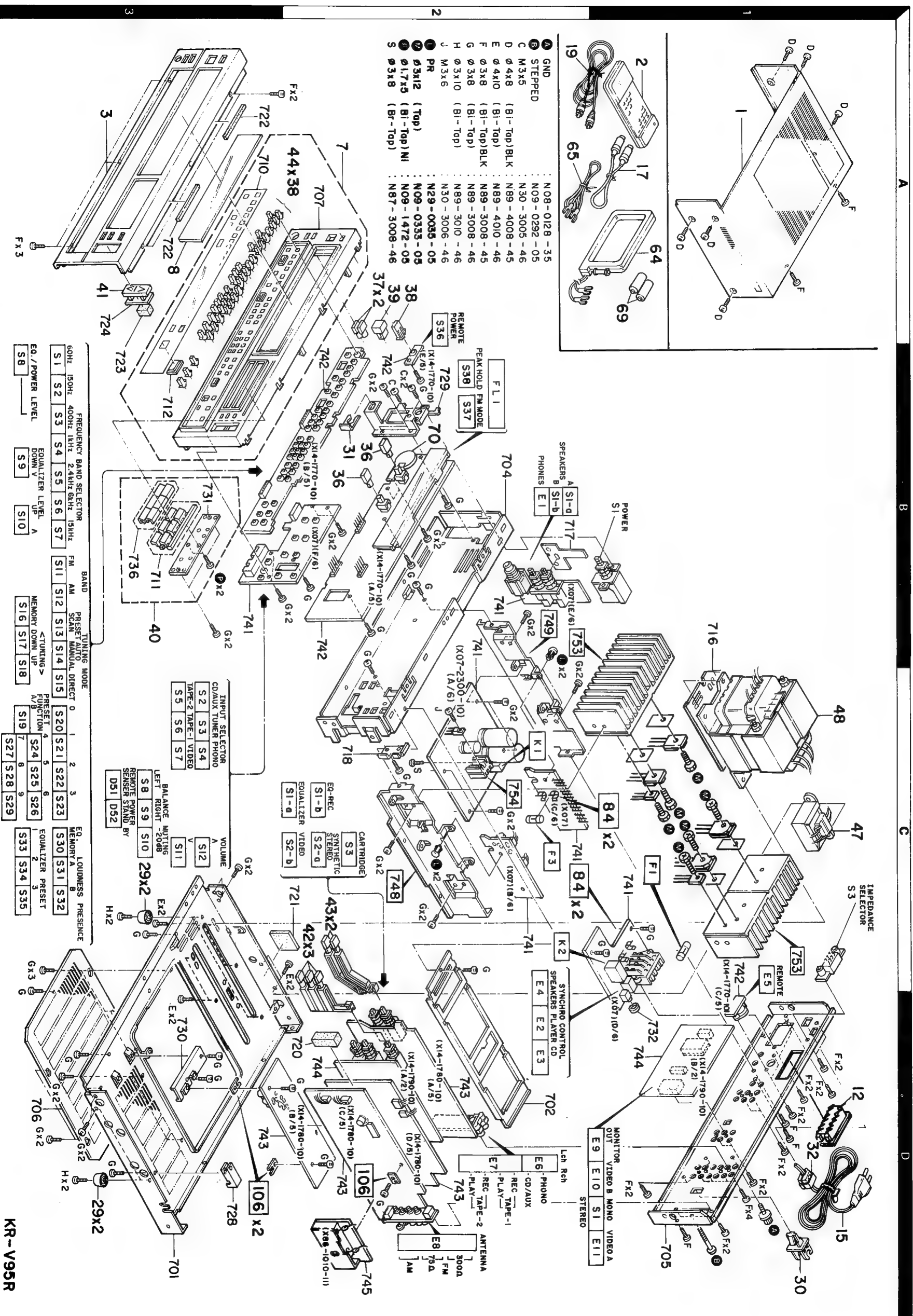
Refer to the schematic diagram for the values of resistors and capacitors.

KR-V95R

See P34

# KR-V95R KR-V95R

## EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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Ref. No.	Address	New Parts	Parts No.	Description	Desti- nation	Re- marks
参照番号	位置	新	部品番号	部品名/規格	仕	備考
KR-V95R						
1	1A	*	A01-1493-02	METALLIC CABINET		
2	1A	*	A70-0145-05	REMOTE CONTROLLER ASSY		
3	3A	*	A20-4960-02	PANEL		
7	2A	*	B01-0330-01	PANEL ESCUTCHEON ASSY		
8	3A	*	B10-0840-03	FRONT GLASS (DISPLAY)	K	
		*	B46-0092-03	WARRANTY CARD	P	
		*	B46-0121-03	WARRANTY CARD	P	
		*	B50-6474-00	INSTRUCTION MANUAL(ENGLISH)	K	
		*	B50-6475-00	INSTRUCTION MANUAL(ENG,FRE)	P	
		*	B58-0269-04	CAUTION CARD	K	
	1D		E03-0086-05	AC OUTLET		
12	1D		E30-0974-05	AC POWER CORD		
15	1A		E30-0950-05	CORD WITH DIN CONNECTOR(8P)		
17	2A		E30-1360-05	AUDIO CORD (1P)		
19		*	H01-7250-04	ITEM CARTON CASE		
		*	H10-3322-02	POLYSTYRENE FRAMED FIXTURE		
		*	H10-3323-02	POLYSTYRENE FRAMED FIXTURE		
		*	H25-0181-04	PROTECTION BAG (150X260X0.05)		
		*	H25-0224-04	PROTECTION BAG (800X400)		
			H25-0232-04	PROTECTION BAG (235X350)		
29	3C, 3D		J02-0126-05	FOOT		
30	1D		J19-0626-12	ANTENNA HOLDER		
31	2B		J21-3326-05	JACK MOUNTING HARDWARE		
32	1D		J42-0083-05	POWER CORD BUSHING		
			J61-0307-05	WIRE BAND		
36	2B		K27-0965-04	KNOB (BUTTON)FM MODE,PEAK HOLD		
37	2A		K27-1304-04	KNOB (BUTTON)SPEAKERS		
38	2A		K29-1498-04	KNOB (BUTTON)REMOTE POWER		
39	2A		K29-2001-04	KNOB ASSY(BUTTON)MAIN POWER		
40	3B		K29-2095-03	KNOB ASSY (SELECTOR)		
41	3A		K29-2105-04	KNOB (BUTTON)MAIN VOLUME		
42	2C		K29-2126-04	KNOB ASSY(BUTTON)SYNTH,VIDEO		
43	2C		K29-2130-04	KNOB ASSY(BUTTON)EQUALIZER		
44	2A	*	K29-2152-04	KNOB (OPERATION KEY		
47	1C		L01-6681-05	POWER TRANSFORMER (REMOTE)		
48	1C	*	L01-7221-05	POWER TRANSFORMER	K	
48	1C	*	L01-7227-05	POWER TRANSFORMER	P	
A	1D		N08-0128-35	BINDING POST (GND)		
A	1D		N09-0292-05	STEPPED SCREW (Ø3X19)		
P	3B		N09-1472-05	TAPTITE SCREW (Ø1.7X5)		
S1	1B		S40-1094-05	PUSH SWITCH (POWER TYPE)		
A	1C		S31-2113-05	SLIDE SWITCH		
64	1A		T90-0104-25	LOOP ANTENNA		
65	2A		T90-0132-05	T TYPE ANTENNA		
69	1A		W09-0022-05	BATTERY		
70	2B	*	W09-0031-05	BATTERY		
POWER AMPLIFIER UNIT (X07-2300-10)						
D52	3C		B30-1012-05	LED(SLP-981C-50)POWER STAND BY		

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参照番号	位置	新	部品番号	部品名/規格	仕	備考
C1 ,2			CE04KM1H2R2M	ELECTRØ		
C3 ,4			CC4SFSL1H470J	CERAMIC		
C7 ,8			CF92FV1H6B2J	MF		
C9 ,10			CE04KM1A101M	ELECTRØ		
C11 ,12			CC4SFSL1H220J	CERAMIC		
C13 ,14			CC4SFSL1H680J	CERAMIC		
C15 ,16			CC4SFSL1H010C	CERAMIC		
C17 ,18			CC4SFSL1H330J	CERAMIC		
C19 ,20			CC4SFSL1H050C	CERAMIC		
C21 ,22			CC4SFSL1H221J	CERAMIC		
C25 ,26			CC4SFSL1H101J	CERAMIC		
C27 -30			C91-0769-05	CERAMIC		
C31 ,32			CF92FV1H473J	MF		
C37 ,38		*	CE04KM2A470M	ELECTRØ		
C39			CE04KM1E470M	ELECTRØ		
C40			CK4SFF1H103Z	CERAMIC		
C41			C90-1333-05	NP-ELEC		
C42			CE04KM1H330M	ELECTRØ		
C43 ,44			C90-0567-05	ELECTRØ		
C45			CE04KM1H2R2M	ELECTRØ		
C46			CE04KM1E332M	ELECTRØ		
C47			CE04KM1A470M	ELECTRØ		
C48 ,49			CE04KM1C470M	ELECTRØ		
C50			CE04KM1C220M	ELECTRØ		
C51			CE04KM1H100M	ELECTRØ		
C52			CE04KM1C470M	ELECTRØ		
C53			C91-0745-05	CERAMIC		
C54			CE04KM1E470M	ELECTRØ		
C55			CE04KM1V330M	ELECTRØ		
C56 ,57			CK4SFF1H103Z	CERAMIC		
C58			CK4SBIH102K	CERAMIC		
C65			CE04KM1C471M	ELECTRØ		
C66			CE04KM1H4R7M	ELECTRØ		
C67			CE04KM1H010M	ELECTRØ		
C68			C91-0647-05	CERAMIC		
C81			CE04KM1A101M	ELECTRØ		
C82			CK4SFF1H473Z	CERAMIC		
C83 ,84			CE04JW0J100M	ELECTRØ		
C85			CE04JW1H010M	ELECTRØ		
E1	2B		E11-0127-05	PHONE JACK (3P)		
E2	2D		E11-0152-05	MINIATURE PHONE JACK(3P)PLAYER		
E3	2D		E13-0119-05	PHONE JACK (1P)		
E4	2D		E20-0823-05	LOCK TERMINAL BOARD(8P) SPKR		
F1	1C		F05-8029-05	FUSE (UL)		
A	2C		F06-1521-05	FUSE (UL)		
F3	1C,2C		J13-0041-05	FUSE CLIP		
84			L39-0085-05	PHASE-COMPENSATION COIL		
L1 ,2			L39-0123-05	PEAKING COIL		
L3 ,4			N29-0035-05	PUSH RIVET (3.5X5.5)		
L	2B,2C		N09-0333-05	TAPPING SCREW (Ø3X12)		
M	1C		R90-0187-05	MULTI-COMP		
CP1 ,2			RD14AB2E102J	FL-PROOF RD		
R23 -26				1.0K 1/4W		

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R27 ,28 R33 -36 R47 -50 R51 -54 R55 -58			RD14AB2E161J RD14AB2E221J RD14AB2E220J RD14AB2E2R2J RD14AB2E221J	FL-PROOF RD 160 J 1/4W FL-PROOF RD 220 J 1/4W FL-PROOF RD 22 J 1/4W FL-PROOF RD 2.2 J 1/4W FL-PROOF RD 220 J 1/4W		
R73 R74 R85 ,86 R107,108 R112			RD14AB2E220J RD14AB2E100J RS14KB3D4R7J RS14DB3A821J RS14DB3A331J	FL-PROOF RD 22 J 1/4W FL-PROOF RD 10 J 1/4W FL-PROOF RS 4.7 J 2W FL-PROOF RS 820 J 1W FL-PROOF RS 330 J 1W		
R114 R115,116 R117 R121,122 R123			RD14AB2E470J RS14DB3A100J RD14AB2E100J RS14DB3A561J RD14AB2E101J	FL-PROOF RD 47 J 1/4W FL-PROOF RS 10 J 1W FL-PROOF RD 10 J 1/4W FL-PROOF RS 560 J 1W FL-PROOF RD 100 J 1/4W		
R130 R152 VR1 ,2			R92-0173-05 RD14AB2E470J R12-0093-05	RC 2.2M M 1/2W FL-PROOF RD 47 J 1/4W TRIMMING POT. (330) BIAS		
Δ K1 K2 S1 S2 -12	2C 2C 2B 3B		S51-2045-05 S51-1036-05 S42-2130-05 S40-1064-05	MAGNETIC RELAY MAGNETIC RELAY MULTIPLE PUSH SWITCH(SPEAKERS) PUSH SWITCH(CD/AUX,TUNER,ETC)		
D1 ,2 D3 ,4 D5 -10 D13 D14			1SS133 RD18ES(B) 1SS178 DSM1A1 1SS178	DIODE ZENER DIODE DIODE DIODE DIODE		
Δ D15 -18 D19 D20 ,21 D22 D23			DSM1A1 RD13ES(B2) 1SS133 RD8.2ES(B) RD15ES(B)	DIODE ZENER DIODE DIODE ZENER DIODE ZENER DIODE		
D28 D29 ,30 Δ D31 -34 D35 ,36 D37			* RD5.1ES(B) RD18ES(B) DSM1A1 1SS178 RD6.2ES(B2)	ZENER DIODE ZENER DIODE DIODE DIODE ZENER DIODE		
D38 D39 D43 ,44 D51 Δ D53 -60			DSM1A1 RD15ES(B) 1SS133 PH302B * DSA3A2*1	DIODE ZENER DIODE DIODE PHOTO DIODE (REMOTE SENSOR) DIODE		
IC1 IC2 Q1 -4 Q5 -8 Q9 -14			UPC1237H UPC1474HA 2SC945(A) (Q,P) 2SC1845(F,E) 2SA1123(Q,R)	IC(PROTECTION) IC(REMOTE CONTROLLER PREAMP) TRANSISTOR TRANSISTOR TRANSISTOR		
Q15 ,16 Q17 ,18 Q19 ,20 Q19 ,20 Q21 ,22			2SC2631(Q,R) 2SC3419 2SA733(A) (Q,P) 2SA999(E,F) 2SC3944(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q23 ,24 Δ Q25 ,26			2SA1535(Q,R) 2SC3280*5	TRANSISTOR TRANSISTOR		

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Δ Q27 ,28 Q29 -32 Q33 Q33 Q34			2SA1301*5 2SA1123(Q,R) 2SC2320(E,F) 2SC945(A)(Q,P) 2SD1266(Q,P)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q35 ,36 Q35 ,36 Q37 Q38 Q38			2SC2320(E,F) 2SC945(A)(Q,P) 2SC2003(L,K) 2SC2320(E,F) 2SC945(A)(Q,P)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q39 -42 Q39 -42 Q43 ,44 Q45 Q46			2SA733(A)(Q,P) 2SA999(E,F) 2SD1266(Q,P) 2SC2003(L,K) 2SC2320(E,F)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q46 Q47 Q48 Q49 Q49		*	2SC945(A)(Q,P) 2SB941(R,Q) 2SD1266(Q,P) 2SA733(A)(Q,P) 2SA999(E,F)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q50 Q50 Q51			2SC2320(E,F) 2SC945(A)(Q,P) 2SC2003(L,K)	TRANSISTOR TRANSISTOR TRANSISTOR		
<b>DISPLAY UNIT (X14-1770-10)</b>						
C1 C2 C3 C4 C5		*	CK45FF1H223Z CED4DWJ471M CED4W1A470M CED4W1V4R7M CED4W1H010M	CERAMIC 0.022UF Z ELECTRO 470UF 6.3WV ELECTRO 47UF 10WV ELECTRO 4.7UF 35WV ELECTRO 1.0UF 50WV		
C6 C7 C8 ,9 C10 C11 ,12			CED4W1H100M CED4W1A330M CK45FF1H223Z CK45FF1H103Z CED4FW1V4R7M	ELECTRO 10UF 50WV ELECTRO 33UF 10WV CERAMIC 0.022UF Z CERAMIC 0.010UF Z ELECTRO 4.7UF 35WV		
C13 ,14 C15 ,16 C17 C18 C19			CF92FV1H104J CC45FSL1H330J CK45FF1H223Z CED4FW1V4R7M CK45FB1H152K	MF 0.10UF -J CERAMIC 33PF J CERAMIC 0.022UF Z ELECTRO 4.7UF 35WV CERAMIC 1500PF K		
E5	1C		E06-0805-15	CYLINDRICAL RECEPTACLE (DIN)		
X1		*	L78-0207-05	RESONATOR (4.194MHZ)		
S1 -36 S37 ,38	3B,3C 2B	*	S40-1064-05 S40-2343-05	PUSH SWITCH PUSH SWITCH		
D1 -9 D10 D11 ,12 D13 D14 -33		*	1SS133 RD20E(B) 1SS131 RD10E(B) 1SS133	DIODE ZENER DIODE DIODE ZENER DIODE DIODE		
D38 -40 FL1 IC1 IC2 IC3 ,4	2B	*	1SS133 FIP18AMW24 UPD7519G-172-36 LC7565 MB84028BM	DIODE FLUORESCENT INDICATOR TUBE IC(MICROPROCESSOR) IC(GRAPHIC EQ FL DISPLAY DR) IC(BCD-TO-DECIMAL DECODER)		

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IC3 ,4 Q1 -3 Q1 -3 Q4 Q5 -17  Q5 -17 Q18			UPD4028BC 2SA733(A) (Q,P) 2SA933S(Q,R) 2SC1845(F,E) 2SC1740S(Q,R)  2SC945(A) (Q,P) 2SC945(A) (Q,P)	IC(BCD-T0-DECIMAL DECODER) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  TRANSISTOR TRANSISTOR				
RECEIVER UNIT (X14-1780-10)								
C3 ,4 C5 ,6 C9 ,10 C11 ,12 C13 ,14  C15 ,16 C17 -22 C25 -28 C29 C30 -35  C36 C37 ,38 C39 ,40 C41 ,42 C43  C44 C45 ,46 C47 C48 C49  C101 C102 C103-107 C108 C109  C110 C111 C112,113 C114 C115  C116 C117 C120 C121 C122  C123-125 C126 C127 C128 C129  C130 C131 C132 C134 C135  C136			C91-0749-05 CC45FSL1H331J CE04FW0J102M CF92FV1H113J CF92FV1H393J  CE04FW1V4R7M * C91-0755-05 CE04FW1H100M CE04FW1H010M C91-0769-05  CK45FF1H473Z CE04FW1C470M CK45FF1H473Z CE04FW1C101M CE04FW1A470M  CE04FW1H010M CK45FF1H473Z CE04HW1H3R3M CK45FB1H102K CK45FF1H473Z  CE04FW1C330M CE04FW1H010M C91-0769-05 CE04FW1H010M * C91-0751-05  CE04FW1H010M C91-0769-05 CE04FW1C330M CE04FW1H010M CK45FF1H223Z  CE04FW1H010M C91-0769-05 C009FS1H391JY0 CK45FF1H473Z C91-0757-05  CK45FF1H223Z CE04FW1C330M CK45FF1H223Z C91-0757-05 CE04FW1H3R3M  CE04FW1V4R7M C91-0769-05 CE04FW1HR47M C91-0769-05 CE04FW1C470M  CF92FV1H473J	CERAMIC CERAMIC ELECTRO MF MF  ELECTRO CERAMIC ELECTRO ELECTRO CERAMIC  CERAMIC ELECTRO CERAMIC ELECTRO ELECTRO  ELECTRO CERAMIC NP-ELEC CERAMIC CERAMIC  ELECTRO ELECTRO CERAMIC ELECTRO CERAMIC  ELECTRO CERAMIC POLYSTY CERAMIC CERAMIC  ELECTRO ELECTRO CERAMIC ELECTRO ELECTRO  ELECTRO CERAMIC POLYSTY CERAMIC CERAMIC  ELECTRO ELECTRO CERAMIC ELECTRO ELECTRO  ELECTRO CERAMIC ELECTRO CERAMIC ELECTRO  MF	220PF 330PF 1000UF 0.011UF 0.039UF  4.7UF 680PF 10UF 1.0UF 0.01UF  0.047UF 47UF 0.047UF 100UF 47UF  1.0UF 0.047UF 3.3UF 1000PF 0.047UF  33UF 1.0UF 0.01UF 1.0UF 330PF  1.0UF 0.01UF 33UF 1.0UF 0.022UF  1.0UF 0.01UF 390PF 0.047UF 0.001UF  0.022UF 33UF 0.022UF 0.001UF 3.3UF  4.7UF 0.01UF 0.47UF 0.01UF 47UF  0.047UF J	K J 6.3WV J J  35WV K 50WV 50WV M  Z 16WV Z 16WV 10WV  50WV Z 50WV 50WV K Z  16WV 50WV M J Z K  Z 16WV Z K 50WV  35WV M 50WV M 16WV		

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C137			CF92FV1H103J	MF	0.010UF	J
C140			CE04FW1C101M	ELECTR0	100UF	16WV
C141			CE04FW1V4R7M	ELECTR0	4.7UF	35WV
C143			CF92FV1H473J	MF	0.047UF	J
C144			CE04FW1H2R2M	ELECTR0	2.2UF	50WV
C145			CE04FW1H3R3M	ELECTR0	3.3UF	50WV
C146			C009FS1H102JY0	P0LYSTY	1000PF	J
C147			CE04FW1H010M	ELECTR0	1.0UF	50WV
C148,149			CK45FB1H681K	CERAMIC	680PF	K
C150,151			C91-0769-05	CERAMIC	0.01UF	M
C152,153			CE04FW1H2R2M	ELECTR0	2.2UF	50WV
C154,155			CF92FV1H222J	MF	2200PF	J
C156,157			CE04FW1C100M	ELECTR0	10UF	16WV
C160,161			C91-0769-05	CERAMIC	0.01UF	M
C162,163			CC45FCH1H390J	CERAMIC	39PF	J
C164			CE04HW1H2R2M	NP-ELEC	2.2UF	50WV
C165			CF92FV1H473J	MF	0.047UF	J
C166			CE04FW1A101M	ELECTR0	100UF	10WV
C167,168			C91-0769-05	CERAMIC	0.01UF	M
C169			CE04FW1C330M	ELECTR0	33UF	16WV
C170			CE04FW1A470M	ELECTR0	47UF	10WV
C171			CE04FW1H010M	ELECTR0	1.0UF	50WV
C175			C91-0769-05	CERAMIC	0.01UF	M
C179			CK45FF1H103Z	CERAMIC	0.010UF	Z
C201,202			CE04FW1HR47M	ELECTR0	0.47UF	50WV
C209-212			CE04FW1H2R2M	ELECTR0	2.2UF	50WV
C213,214			CE04FW1H010M	ELECTR0	1.0UF	50WV
C215,216			CE04FW1HR22M	ELECTR0	0.22UF	50WV
C217,218			CE04FW1HOR1M	ELECTR0	0.1UF	50WV
C219,220			CF92FV1H473J	MF	0.047UF	J
C221,222			CF92FV1H223J	MF	0.022UF	J
C223,224			CF92FV1H822J	MF	8200PF	J
C225,226			CF92FV1H332J	MF	3300PF	J
C227,228			CF92FV1H184J	MF	0.18UF	J
C229,230			CF92FV1H104J	MF	0.10UF	J
C231,232			CF92FV1H223J	MF	0.022UF	J
C233,234			CF92FV1H103J	MF	0.010UF	J
C235,236			CF92FV1H272J	MF	2700PF	J
C237,238			CF92FV1H122J	MF	1200PF	J
C239,240			CK45FB1H471K	CERAMIC	470PF	K
C241,242			CE04FW1H010M	ELECTR0	1.0UF	50WV
C243,244			CE04FW1C100M	ELECTR0	10UF	16WV
C245,246			CE04FW1C101M	ELECTR0	100UF	16WV
C247			CK45FF1H473Z	CERAMIC	0.047UF	Z
C301,302			CE04FW1HR47M	ELECTR0	0.47UF	50WV
C304			CE04FW1HOR1M	ELECTR0	0.1UF	50WV
C305			CF92FV1H473J	MF	0.047UF	J
C306			CF92FV1H153J	MF	0.015UF	J
C307			CF92FV1H682J	MF	6800PF	J
C308			CF92FV1H272J	MF	2700PF	J
C309			CF92FV1H102J	MF	1000PF	J
C310			CK45FB1H471K	CERAMIC	470PF	K
C311			CE04FW1HOR1M	ELECTR0	0.1UF	50WV
C312			CF92FV1H473J	MF	0.047UF	J
C313			CF92FV1H153J	MF	0.015UF	J

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C314 C315 C316 C317 C318-324			CF92FV1H682J CF92FV1H272J CF92FV1H102J CK45FB1H471K CED4FW1H010M	MF 6800PF J MF 2700PF J MF 1000PF J CERAMIC 470PF K ELECTRON 1.0UF 50WV		
TC1 ,2			C05-0303-05	CERAMIC TRIMMER CAPACITOR(20PF)		
106 E6 E7 ,8	2D, 3D 2D 2D		E23-0125-05 E13-0621-05 E20-0452-05	TERMINAL PHONE JACK (6P) SCREW TERMINAL BOARD(4P)		
CF1 ,2 CF3 CF4 L1 L2			L72-0140-05 L72-0099-05 L72-0096-05 L40-2292-14 L39-0128-05	CERAMIC FILTER CERAMIC FILTER CERAMIC FILTER SMALL FIXED INDUCTOR(2.2UH,M) PEAKING COIL		
L4 L5 L6 L9 T1		*	L32-0277-15 L31-0509-05 L40-1021-14 L79-0154-05 L30-0437-05	MW OSCILLATING COIL MW-RF COIL SMALL FIXED INDUCTOR(1.0MH,K) LC FILTER FM IFT		
T2 T3 X1		*	L30-0438-05 L30-0362-05 L77-0578-05	FM IFT AM IFT CRYSTAL RESONATOR(7.2MHZ)		
R68 -71 R101 R119 R151 R155			RD14AB2E100J RD14GB2E330J RD14AB2E330J RD14AB2E330J RD14AB2E330J	FL-PROOF RD 10 J 1/4W FL-PROOF RD 33 J 1/4W FL-PROOF RD 33 J 1/4W FL-PROOF RD 33 J 1/4W FL-PROOF RD 33 J 1/4W		
R293,294 R342 VR1 VR2 VR3		*	RD14AB2E220J RS14DB3A271J R12-1070-05 R12-3096-05 R12-3097-05	FL-PROOF RD 22 J 1/4W FL-PROOF RS 270 J 1W TRIMMING PQT.(1K) VSP OFFSET TRIMMING PQT.(10K) VCO TRIMMING PQT.(22K) SEPARATION		
S1	2C		S42-2120-05	MULTIPLE PUSH SWITCH(EQ)		
D1 -28 D31 D32 -35 D36 D37			1SS133 KV1236(Z2) 1SS133 RD6.2E(B) 1SS133	DIODE VARIABLE CAPACITANCE DIODE DIODE ZENER DIODE DIODE		
D41 D42 D43 D44 D45 -51			1SS133 RD6.8E(B2) 1SS133 RD6.2E(B) 1SS133	DIODE ZENER DIODE DIODE ZENER DIODE DIODE		
IC1 IC2 IC3 IC4 IC5		*	AN6556 TC9164N TC9176P AN6556F LA1232	IC(OP AMP X2) IC(16CH BILATERAL SELECTOR SW) IC(2CH ELECTRONIC VOLUME) IC(OP AMP X2) IC(FM IF/DETECTION)		
IC6 IC7 IC8 IC9 IC10		*	LA1245 LA3390 LM7000 AN6556 LC7522	IC(AM) IC(FM MPX) IC(PLL FREQUENCY SYNTHESIZER) IC(OP AMP X2) IC(7CH GRAPHIC EQUALIZER)		

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IC11-14 Q1 -4 Q5 ,6 Q7 Q7			AN6556 2SK163(L,M) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R)	IC(OP AMP X2) FET TRANSISTOR TRANSISTOR TRANSISTOR		
Q21 Q24 Q24 Q26 ,27 Q26 ,27			2SC1923 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q28 ,29 Q30 ,31 Q41 -55 Q41 -55 Q56			2SC1845(F,E) 2SC2003(L,K) 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SC2003(L,K)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
VIDEO CONTROL UNIT (X14-1790-10)						
C1 ,2 C3 C4 C5 ,6 C11		*	CE04FW1C330M CE04HW1C220M CE04DW1A471M CE04DW1A331M CK45FB1H561K	ELECTRO 33UF 16WV NP-ELEC 22UF 16WV ELECTRO 470UF 10WV ELECTRO 330UF 10WV CERAMIC 560PF K		
C12 C14 C15 C16 C17			CE04FW1H010M CF92FV1H123J CF92FV1H332J CF92FV1H123J CF92FV1H332J	ELECTRO 1.0UF 50WV MF 0.012UF J MF 3300PF J MF 0.012UF J MF 3300PF J		
C18 C19 C20 C21 ,22 C23 ,24			CF92FV1H123J CF92FV1H332J CE04FW1C100M CE04FW1H010M CE04FW1V4R7M	MF 0.012UF J MF 3300PF J ELECTRO 10UF 16WV ELECTRO 1.0UF 50WV ELECTRO 4.7UF 35WV		
C25 C26 ,27 C28 ,29 C31 C32		*	CE04DW1C331M CE04FW1A470M CE04FW1C330M CE04FW1A470M CE04FW1C101M	ELECTRO 330UF 16WV ELECTRO 47UF 10WV ELECTRO 33UF 16WV ELECTRO 47UF 10WV ELECTRO 100UF 16WV		
C33			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
E9 E10 ,11	1D 1D		E13-0227-05 E13-0625-05	PHONE JACK (2P) MONITOR OUT PHONE JACK (6P) VIDEO		
R76 R86 R89			RD14GB2E560J RD14GB2E101J RD14GB2E101J	FL-PROOF RD 56 J 1/4W FL-PROOF RD 100 J 1/4W FL-PROOF RD 100 J 1/4W		
S1 S2 S3	1D 2C	*	S31-2096-05 S42-2131-05 S40-6027-05	SLIDE SWITCH (MONO/STEREO) MULTIPLE PUSH SWITCH PUSH SWITCH (CARTRIDGE)		
D1 -8 D1 -8 D9 D10 ,11 IC1			1SS133 1S2076 RD8.2E(B) RD6.2E(B) BA7001	DIODE DIODE ZENER DIODE ZENER DIODE IC(SWITCHER FOR VCR)		
IC2 ,3 IC4 Q1			AN6556 UPD4066BC 2SC2320(E,F)	IC(OP AMP X2) IC(BILATERAL SWITCH X4) TRANSISTOR		

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Q1 Q2 Q3 ,4 Q5 ,6 Q7			2SC945(A)(Q,P) 2SC2003(L,K) 2SC2320(E,F) 2SC1845(F,E) 2SC2320(E,F)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q7			2SC945(A)(Q,P)	TRANSISTOR		
FRONT-END UNIT (X86-1010-11)						
C1 C2 C4 C6 ,7 C8		*	C91-0716-05 CC45FSL1H470J C91-0757-05 C91-0716-05 C91-0720-05	CERAMIC 3.9PF K CERAMIC 47PF J CERAMIC 0.001UF K CERAMIC 3.9PF K CERAMIC 8.2PF K		
C9 C10 ,11 C13 C14 C15		*	C91-0749-05 C91-0769-05 C91-0709-05 CC45FUJ1H080D C91-0725-05	CERAMIC 220PF K CERAMIC 0.01UF M CERAMIC 1PF M CERAMIC 8.0PF D CERAMIC 15PF J		
C16 C17 C18 C19 C20		*	C91-0733-05 C91-0769-05 C91-0713-05 CED4FW1C470M CC45FSL1H470J	CERAMIC 33PF J CERAMIC 0.01UF M CERAMIC 2.2PF K ELECTRO 47UF 16WV CERAMIC 47PF J		
TC1			CO5-0302-05	CERAMIC TRIMMER CAPACITOR(11PF)		
L1 L2 L3 L4 L6			L31-0512-05 L31-0513-05 L31-0515-05 L31-0514-05 L40-1092-14	FM-RF COIL FM-RF COIL FM-RF COIL FM-RF COIL SMALL FIXED INDUCTOR(1UH,M)		
L7 L8		*	L30-0427-05 L32-0318-05	FM IFT FM OSCILLATING COIL		
R16			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
D1 ,2 D4 Q1 Q2 Q4 ,5			KV1310-3 KV1310-3 2SK161(GR) 2SC1923(O) 2SC1923	VARIABLE CAPACITANCE DIODE VARIABLE CAPACITANCE DIODE FET TRANSISTOR TRANSISTOR		

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# SPECIFICATIONS

(IHF'66)

KR-V95R

## AUDIO SECTION

### Power Output

100 watts per channel minimum RMS, both channel driven at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.008 % total harmonic distortion

110 watts per channel minimum RMS, both channel driven at 8 ohms at 1 kHz with no more than 0.008 % total harmonic distortion

### Total Harmonic Distortion

(20 Hz-20,000 Hz,

8 ohms) .....

0.008 % at 100 W

(1 kHz, 8 ohms) .....

0.002 % at 100 W

Inter modulation Distortion ..... 0.008 % at 100 W

### Input Sensitivity/Impedance

PHONO (MM) ..... 2.5 mV/47 kohms

PHONO (MC) ..... 0.2 mV/100 ohms

CD/AUX, TAPE, VIDEO ..... 150 mV/47 kohms

### Frequency Response

PHONO (RIAA standard

Curve) ..... 20 Hz-20,000 Hz... ±0.5 dB

TAPE, CD/AUX ..... 10 Hz-100,000 Hz... +0 dB,

-3 dB

### Signal to Noise Ratio

PHONO (MM) ..... 85 dB

PHONO (MC) ..... 65 dB

CD/AUX, TAPE, VIDEO ..... 100 dB

### Graphic Equalizer

Center Frequency ..... 60 Hz, 150 Hz, 400 Hz, 1 kHz,

2.4 kHz, 6 kHz, 15 kHz

Control Range ..... ±12 dB

## VIDEO SECTION

Inputs VIDEO 1,2 ..... 1 Vp-p, 75 ohms unbalanced

Output VIDEO 1,2 ..... 1 Vp-p, 75 ohms unbalanced

### MONITOR VIDEO

OUT ..... 1 Vp-p, 75 ohms unbalanced

## FM TUNER SECTION

Tuning Frequency Range ..... 87.5 MHz-108 MHz

Antenna Impedance ..... 300 ohms balanced & 75

ohms unbalanced

Usable Sensitivity ..... 10.8 dBf (1.9 µV)

### 50 dB Quieting Sensitivity

MONO ..... 14.2 dBf (2.8 µV)

STEREO ..... 36.8 dBf (38 µV)

### Signal to Noise Ratio at 65 dBf

MONO ..... 80 dB

STEREO ..... 72 dB

### Total Harmonic Distortion at 1,000 Hz

MONO ..... 0.07 %

STEREO ..... 0.1 %

Frequency Response ..... 30 Hz-15,000 Hz +0.5 dB,

-2 dB

Stereo Separation ..... 50 dB at 1,000 Hz

Selectivity ..... 55 dB at 400 kHz

Capture Ratio ..... 1.0 dB

Image Rejection Ratio ..... 38 dB

IF Rejection Ratio ..... 80 dB

Spurious Rejection Ratio ..... 75 dB

AM Suppression Ratio ..... 72 dB

## AM TUNER SECTION

### Tuning Range

530 kHz-1,610 kHz

(with the AM tuning interval set at 10 kHz)

Usable Sensitivity ..... 10 µV (400 µV/m)

Signal to Noise Ratio ..... 50 dB

Total Harmonic Distortion ..... 0.3 %

Selectivity ..... 25 dB

## GENERAL

Power Requirement ..... 60 Hz, 120 V

Power Consumption ..... 3.8 A

AC Outlet ..... Switched × 3 (200 W)

Dimensions ..... 420(W) × 128.5(H) × 321(D)mm

(16-9/16" × 5-1/6" × 12-5/8")

Weight (Net) ..... 9.0 kg (19.8 lb)

### Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.

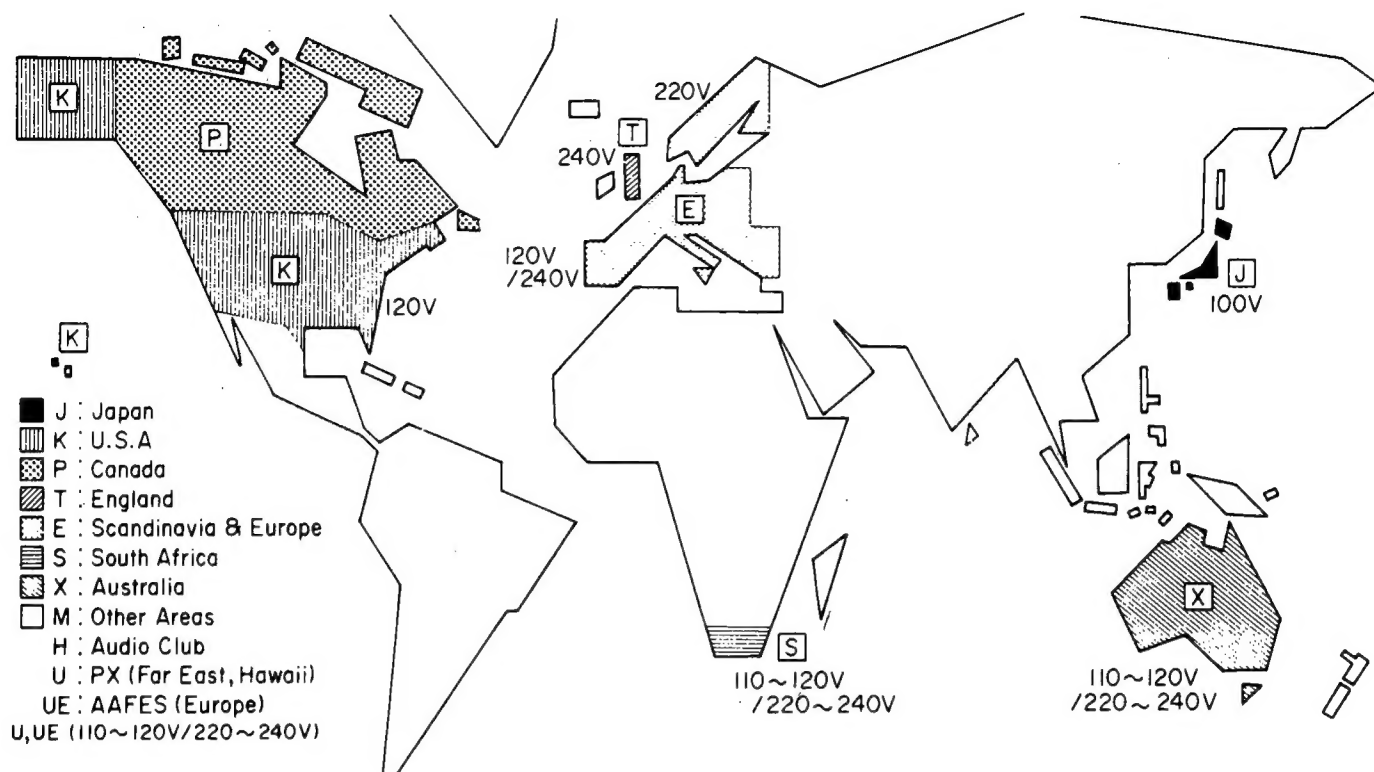
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Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.



## WORLD MAP & AREA CODE



### Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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